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INSTITUTIONS NUMBER

THE

Journal of Home Economics

VOL. II. NOVEMBER, 1910 No. 5

EDITORIALS.

Institution Problems and the Household.

Groups living together under one roof are growing larger and larger, and the problems of satisfactorily administering the affairs of the larger family are becoming more and more complex. As wants increase in variety, the cost of living increases and economy in the conduct of affairs becomes a pressing necessity. Coöperation is taking the form of community living rather than coöperative family housekeeping, which seems to have failed on trial.

These conditions bring to the front not only financial questions, but also social and psychic problems which must be really studied. The merely mechanical details of community living are not more difficult than many others which have been successfully worked out in other kinds of business and manufacture. Like all inventions the difficulties are in the first stage of trial. But in household management there are two new factors. First are the individualistic preferences which have been fostered by the private life of the family, and which disturb the large home rather than add to its attractiveness. Coöperation, the union of individual efforts for the common good of the whole community, is not understood—wilfully disregarded, no doubt. The recognition that coöperation must be based on a common law or principle, while individualism is lawless and whimsical, will mean a long step towards a solution of the living problem.

The second factor in obstruction is the lack of team-work—one might say the rebellion against it of the household manager and worker. Women want their own way, whether it is a good way or not. Their province is the last stronghold of traditionalism. They have been slow to see the advantage of scientific ways and inventions,

and they are adopting them only under the compulsion of circumstances. In this negligence, women may perhaps be said to be only negatively at fault. The social condition is the positive reason, and the housekeepers will not give up their inherited views. Why? Because they cannot see the new way without much work, much thought and much readjustment. They are, in truth, lazy.

If housewives are to have anything to say about the habits and customs of living which the middle of the twentieth century will see established, they must bestir themselves. It is necessary for them to grasp some of the business principles underlying the living conditions of large groups before they can bring any modification into the mechanical tendency of the single home.

For this reason women are urged to undertake the study of the existing groups—school and college dormitories, summer hotels, apartment houses, cafés, tea rooms and restaurants, to see wherein fundamental assumptions may be amended before they become settled habits expressed in brick and stone and therefore difficult to change.

It is necessary to study the social and psychic conditions in order to establish these principles. Therefore at present the discussions must be largely pragmatic and argumentative, though never dogmatic.

The recent Lake Placid meeting marks the beginning of a new era, and as such is worthy of more attention than even the individual papers warrant.

ELLEN H. RICHARDS.

The Institution as an Outside Helper.

The problems of institutional management are growing apace in this country. Whether these problems concern the well-being of the child in orphan asylum and boarding school, the youth in college dormitory and factory boarding house, the traveling public in hotels, the sick in hospitals or the inmates of prisons and reformatories, they can be met only by such a consultation of experts as took place at Lake Placid in July last. Superintendents, matrons, purveyors, nurses, social workers, will all find the papers presented, and which appear in this number of the JOURNAL, both valuable in the subject-matter presented and suggestive as to future work along these lines,

It has been asked what lesson have these papers for the householder, she who presides over a very small group? For the household whose income is certain and adequate for the scale of living that

has been adopted, direct help and very valuable suggestion will be found in these papers. System, order, accurate accounting so that we may know an economy when we see it are greatly needed in the average household. If the care of dormitory bedrooms can be standardized, so also can the care of home bedrooms. And yet we must look with tolerance on individual needs and consider the complexity of the housekeeper's problem. Homes are established without a board of trustees, without a permanent bank account, without a settled policy as to the relative importance between a balanced ration and a Sunday gown for the mother; and their relation to the general good or to commonly accepted standards is in many cases slowly learned by the pressure of outside forces. The proportion of the income available for housekeeping is often too variable, too much influenced by the various tastes and preferences of the different members of the family to admit of applying to it the standards of hotel and hospital. To eke out the sum needed for the son's or daughter's college course, the store of household linen may be allowed to run low until the end of the four years, the house denied its rightful coat of paint, and the family compelled to "put up" with a far from perfect bathroom, and who shall say that a mistake has been made? We all know that the apportionment of the household income after the primal needs are met touches important questions of ethics as well as economics, and may be called the keynote of the social and moral status of any given family, of whose many functions, let us remember, housekeeping is but one. The problem of the institution is far simpler in that it is much more confined to housekeeping alone.

But the small householder, although debarred from direct imitation of the methods employed in hospital and hotel, has warrant for a growing interest in the usages of large institutions and ways of meeting their problems. For instance, by observing hospital methods she may be convinced that it is perhaps impossible to carry through in her own house a case of contagious disease without danger to the rest of her family, and she will realize that the hospital will more and more be the resource in such emergencies; if it is proved to her that the hotel and restaurant are well-kept she will more and more use them for the occasional dinner when light housekeeping palls; more and more insistent already is heard her demand for food depots where cooked food above reproach from a sanitary point of view, and yet of reasonable price, can be obtained for consumption at home, such food as the New England Kitchen furnished in Boston.

The small householder also increasingly needs the help of the laundry and bakery, the fine equipment and wholesale methods of which, she realizes, should enable them to put the home wash tub and range oven out of business. But both of these industries are yet to be brought under proper inspection; the laundry as to unhygienic methods, the use of destructive chemicals and combined action to keep up unnecessarily high prices (it has been shown in at least one city that the price for flat work can be placed far below twenty-five cents a dozen); the bakery chiefly as to its cleanliness and the quality of its product, for it remains a fact that the German baker who produces in Germany a loaf which no housewife can equal, bakes bread in his adopted land of such a sawdusty flavor and consistency that the housewife with any standards as to what this staff of life should be is forced to make bread in her own kitchen, where she reaches better results with good materials combined with only average skill. It would seem that we are to gain better inspection and control of these industries only by going outside and fighting for it as we did for the honest label on can and package, which when obtained gave new value to the products of cannery and packing house.

This is our greatest interest in the large organization. It must serve us honestly, effectively and cheaply, and thus take out of the house the heaviest tasks, and those for which it is not equipped. And to what end? Not that the house mother shall be freed of duties owed her family, but that the amount of house work may be so reduced that she can in most cases handle what is left with ease and without the presence of a servant, thus enabling her to make of the house work an invaluable teaching plant for the children of the family, something she cannot do if the work is so heavy as to exhaust her and take all her time, or if an outsider, cook, or other helper is present.

We do not appreciate as yet the value of the household arts in the education of young children who help the mother in performing them in an unhurried way and with the best appliances. And to this must be added the cultivation of the home garden plot, for, if we may judge by the opinions and projects of the farsighted men and women who are giving their time and energy to social service, the child of the future is to be brought up in the country or city suburbs and in small groups which shall bear a vital relation to one woman, the mother, either real or adopted. Scattered groups of this kind are not to be helped by any plans for community living.

Is not this relief of the household by the better organization of outside business for doing some of its heaviest tasks the next great work to be attacked?

MARY HINMAN ABEL.

Standardization of Housework. To standardize housework, as business has already been standardized, is one of the tasks for the near future. If you should ask twenty housekeepers how many maids would be required to care for two hundred bed-rooms under stated conditions, possibly two or three of the answers might agree. Probably none would do so. The manager of a laundry can tell you how many shirts an average ironer can put through in a day. The factory foreman knows the exact output of each department for any given time. Yet in work no less important we are still groping uncertainly. A few investigations have been made, but they are a mere beginning. In dining room service there is more nearly an agreement as to what one person can do than in other departments of housekeeping. During the past year at Teachers College a student has taken for her research work a comparison of chamberwork in five college dormitories of different institutions, making careful time studies in each case. We need very many more such studies—hundreds of observations, in fact, from which to take averages. All kinds of institutions and all kinds of domestic tasks should be studied, so that any inquirer in any phase of the work may be able to gain reliable information suited to his particular needs.

Study of Finance. A young woman in New York was recently asked if she would consider a position as head of a lunch room. She answered: "I shall not know till I have heard just how much money you will allow me to spend for maintaining that standard for meals which, you say, you insist upon."

The good sense of this reply is obvious, yet how many managers, either of private homes or of institutions, can tell accurately in advance (barring the fluctuations of the market) how far a definite sum of money will go toward feeding and housing people under certain conditions. We need more study—careful, painstaking study—of the value of a dollar. The training schools can and must help us by requiring courses in business management of all those who seek the

responsibility of spending other peoples' money. Institution managers can help us by keeping their records of expenditure in such thoughtful and intelligent form as to be, when called for, a valuable contribution on this subject. The home makers can help us by keeping strict and classified household accounts, and directing their children in the same paths. The most insistent complaints of poor food and poor service throughout a building, come, as a rule, from those who have had the least experience in domestic affairs, large or small, and who have never learned how much and how little a dollar will buy.

Household Pests. Practical sanitation in crowded centers offers a field for the most zealous work. Much has been written, and well written, on the subject of household pests, yet the last word has still to be spoken. New York City, as is well known, is infested with vermin, and large institutions situated therein are constantly asking each other how to fight this great enemy of cleanliness. Many of the agents recommended contain combustible materials prohibited by insurance companies. Other remedies are dangerous to human life. Still other "sure cures" have odors which make their use practically impossible in buildings containing hundreds of inmates. The problem which faces administrators of hospitals, dormitories, etc., in crowded cities is appalling. May not some of the study of the near future be directed in this channel?

Institution Government. Much is said, nowadays, about standards in all our institution work. We have yet to come to an agreement as to the simplest, sanest form of government. The names "superintendent," "housekeeper," "matron," etc., are still rather vague terms. Responsibility without authority is preventing good work in many quarters. Will not the American Home Economics Association help the institutions to some uniformity in these matters? Probably hospitals are the most nearly agreed, but in other institutions an amazing variety of interpretations prevail. Definiteness and consistency as to the duties, rank and practical authority belonging with each title would give, we believe, new dignity to the worker, and through closer organization, an improvement in the quality of work.

GENERAL PROBLEMS IN ADMINISTRATIVE WORK.[1]

ADELAIDE NUTTING,

Teachers College, New York City.
Chairman of Session.

Miss Nutting opened the meeting by a brief presentation of the field of administration, showing the developments which have taken place in recent years in institution life, the new avenues of administrative work which have thus been opened up, and pointing out the tendency of the day toward specialization, through which further similar developments might be looked for. The hospital was referred to as a prominent type of institution, in which the growth both in numbers and variety had been especially striking, the number rising from about one hundred twenty-five years ago to over six thousand as recorded to-day, and the variety such as to call for an extensive classification, both as to form of government—such as state, municipal and private—and kind of work—such as that called for in emergency work, childrens', psychopathic, tuberculosis, etc.

The increase in the number of college dormitories was also noted, and mention was made of clubs and settlements, and of the commercial field of administrative work as seen in hotels, apartment houses, restaurants and lunchrooms. The same problems, varying only in dimensions and intensity, were shown to be common to all, each calling for highly organized, highly skilled housekeeping, and for the educated administrator.

Referring again to the hospital, Miss Nutting pointed out the steady advance in knowledge of foods and nutrition, of the continuous investigations and experiments made in this subject, and of the modern hospital as the center of much of study and experiment, as well as of the practical application of new discoveries, theories and methods.

[1] The following papers, with the accompanying discussion, were presented at the Lake Placid Conference of the Administration Section of the American Home Economics Association, June 27 to July 1, 1910. A program of the conference is given on page 583 of this number.

To make such practical application of scientific knowledge, it became necessary to create the dietitian.

As typical of some of the specialized fields of work, a brief review was made of the duties of the dietitian in the modern hospital, as follows:

"In almost all hospitals, the dietitian will be called upon to arrange for at least five types of dietaries, and suitable variations must be made within each type, the governing factor often being the per capita cost per day, which may range from eleven cents to forty or fifty cents. There is first the daily dietary for the non-paying patient in which the maximum of nourishment must be secured for the minimum cost. On the other hand there is also the dietary of the private wards, which is in essence that of a hotel where not only the very sick must be cared for, but also where convalescents in various stages call for much thought. The choice and combination of foods and their preparation and service must be well-nigh faultless if they are to satisfy people accustomed to such standards in their own homes, and unwilling to accept less in sickness, elsewhere. The special diet of individual patients is often their sole treatment. Any diet is apt to grow monotonous, whereas a new dish may cause as much excitement as Halley's comet. The recovery of the patient sometimes rests upon the skill, fidelity and judgment with which a prescribed diet is administered, and while the nurse may be the direct agent, the quality of food and its selection are not usually within her province, but rest frequently with the dietitian, who is usually also responsible for its preparation.

"The dietary of the students in the training school, upon whom in the last analysis the burden of the hospital work rests, should also be a matter of constant thought and attention. It may be simple, but it should be extremely nourishing, well cooked and well served, and I believe that unwise economy in this department is detrimental—highly so—to the best interests of the entire institution.

"In addition to the body of student nurses there will be a staff of residents, whose work is important and arduous. The same need exists for a generous dietary for them, but I lay less emphasis upon it here, because there is usually less difficulty in securing suitable food for the physicians than for the student nurses. Finally comes a group of employees of varying types, men and women, whose work is essential to the efficiency of the institution, and whose needs in the way of daily food are obvious.

"The dietitian in such a field has problems of very grave importance, and careful scientific, technical, and practical training is required in a modern hospital to handle the situation efficiently. It would be almost as useless a task to attempt to train a nurse by theoretical methods and expect her to understand and handle efficiently the varying problems of illness, as to expect a woman trained only in the laboratory and class room to direct successfully so important and complicated a field of practical work. One woman may pay the highest prices and select the best foods, but lack business knowledge and be blind to spattered windows, sticky and soiled cruets, and dirty floors. Another may have knowledge of foods but fail entirely in handling employees. There is a clear-cut, definite demand that dietitians shall be trained women, not relying solely on the telephone but knowing conditions, markets, prices and quality. Before we can produce the right women, there must be a well worked out, practical system. To discuss the essentials of such a system of education for the various grades of institution workers is one of the purposes of this Conference.

"It seems evident that a dietitian should have a good working knowledge of physiology as well as of chemistry and physics, and there should be no uncertainty about the matter of bacteriology, since sanitary precautions need nowhere to be more scrupulously observed than in the handling of food materials, their storage, preservation and preparation. After the dietitian has had good scientific groundwork and applied science in the laboratory, she must seek some contact with the actual problem of selecting, buying and combining foods, with seeing that they are properly cooked and served three times a day, and with meeting the emergencies that may arise in the purchase, preparation and serving of such meals. Work of this nature should be done by the student under supervision and direction, and not until she has demonstrated her power to plan and carry out to the last detail the work involved in her department and her ability to meet its ordinary responsibilities, should she present herself to the hospital as ready and competent to assume control of one of its most important departments."

Following this survey of the field of the dietitian as fairly representative of the more specialized branches of administrative work, the matter of nomenclature was brought forward. A serious study of this point was urged, in order that the province and duties of the various grades of institution workers might be carefully defined, and

appropriate titles instituted where now non-existent. Confusion as to the functions of house director, matron, housekeeper, or of dietitian, purveyor, steward, could only be removed by such exact and careful defining, which would be of great assistance in planning suitable courses of study for the preparation of such workers. The English term manageress, the French *econome*, and Mrs. Richards' suggested refectioner or refector, were discussed, and the advisability of appointing small committees to agree upon nomenclature as well as courses of study was urged. It was further pointed out that while commercial rewards are fair in the administrative field of work, its intrinsic importance in the community is the point at issue, and one which must be constantly emphasized.

Certain Phases of Instruction in Institutional Management.

SARAH LOUISE ARNOLD.

Dean of Simmons College.

This paper does not attempt to deal with the intimate problems of institutional administration, which belong to the expert. It is presented rather from the point of view of one who has necessarily dealt with organization for instruction, has considered the problems as suggested by the demand for workers and the reports from the field, and who has viewed the subject chiefly as an extension of the original field of Household Economics.

It is evident that there is an urgent demand for women of native ability, mature experience, social aptitude, good judgment, promptness in meeting emergencies, and sound business sense, to direct institutional housekeeping, if so awkward a phrase may be allowed. It is clear that many of these qualities must be contributed by the individual. They cannot be secured by a fixed course of study in school or college. On the other hand, they may be developed by wise tuition. And, further, opportunities may be provided for such observation, such practice under expert guidance, such interpretation of accumulated experience, as will fortify the worker and prevent her from making the mistakes of the novice.

This, I take it, has been the purpose of the various courses in institutional management which have been hitherto provided. No course has been supposed to be complete. Its virtue has depended chiefly

upon its suggestiveness, its provision of opportunities for observation and practice, and the semi-professional attitude which has been developed by association in the study of a common vocation. What we have to say, therefore, cannot be at all in the nature of a last word on the subject. We are all groping towards the light, but there are already many signs of the coming day.

The experiments in training for institutional administration which have been carried on at Simmons College for the past six years have naturally been closely connected with the evolution of the management of a city dormitory on the one hand and the development of courses in the school of Household Economics on the other. It seemed reasonable to establish a course in institutional management under the leadership of the house superintendent, whose ability and judgment in practical administration provided a natural reservoir of immediate instruction. A small group of mature students was therefore gathered under her direction, with the understanding that at least one half of the time should be given to the study of related subjects at the college, and the other half to observation and practice in the college dormitories, united with visits to institutions and abundant opportunity for marketing. With the college authorities approving the experiment, it was possible to make use of the dormitory as a training school, with the daily affairs of dormitory administration as a text for instruction. The problems connected with such use of a college residence will be discussed later. It was clear, however, that the laboratory was the essential element in such instruction, and the college gave every opportunity for such practice, as the demands arose.

Miss Colburn, who carried the first years of this course, brought great enthusiasm and unfailing devotion to the work. Her broad experience and her professional spirit gave both breadth and intensity to her teaching. With every year, therefore, the course was strengthened. On the withdrawal of Miss Colburn the instruction was continued by Mrs. Weld, who came from successful experience in hospital administration. The college lunch room was added to her domain and arrangements were made with the Women's Educational and Industrial Union for the provision of additional practice under business conditions. The demand for graduates from this course always exceeds the supply, and the number of registrations indicates that the necessity of preparation for institutional administration is recognized as never before.

Certain principles may be fairly deduced from even so brief an experience. Of these I have selected certain essentials for further discussion.

First, the principles of institutional housekeeping have much in common with the administration of the private home, and the student may with profit follow ordinary courses in Household Economics as a foundation. The common fundamental knowledge having been secured either through college courses or earlier preparation and practice, the emphasis of specific courses in these subjects should be chiefly placed upon phases which are apparent only in institutional life. For example, a perusal of the columns of "discoveries" in a magazine devoted to the interests of the household shows clearlythat devices which are useful to the individual will not serve in the hands of a changing body of paid servants. The equipment of a hotel kitchen must take into account carelessness in handling utensils, the rapidity of service, and congestion at times of greatest pressure, all of which increase the probabilities of breakage. The equipment then, must either be frequently renewed or must be fitted to withstand the usage attending these conditions. The exquisite china, which is delightful to contemplate on the home table and which is handed down from generation to generation by the careful housewife, naturally disappears from dormitory, hotel or club, except where cost of residence is made to include cost of breakage and the desire for the beautiful and attractive is met by the increased amount paid for care, for labor, and for renewal of material. The institutional question, therefore, is not simply what equipment is immediately attractive and supposedly serviceable but what equipment will meet the demands of this particular institution with the utmost satisfaction and the least expense.

Or again, the menus provided for the private family, which are not only othodox as to dietary, but toothsome and aesthetically attractive, are often costly in expenditure of time. Such expenditure is not ordinarily estimated in the private family, as it is freely given out of the time and thought of the *home-maker*, who *gives everything* for the sake of those whom she serves. The institution, on the other hand, must pay for all such provision, and it requires a wise head to apply the household experience in a manner which will secure attractiveness and efficiency with the least expenditure in labor, in time, and in money. Many things, therefore, which are *encouraged* in the housewife must be *discouraged* in the institution if it is to be an economic success.

These illustrations may suffice to indicate the truth that it is well for the candidate in institutional management to bring to her course a full knowledge of individual housekeeping and the principles involved therein, in order that she may give the time of her institutional course chiefly to the practices in which the institution must differ from the home.

It follows that general courses in household arts,—cooking, sewing cleaning, etc., ought not to be an essential feature of the instruction in institutional management. The student who is properly prepared will bring this knowledge with her. Thus far, however, it has been necessary to give this elementary instruction to many of the candidates —and here has been one of the difficulties of the course. Later we may be able to require either assurance of such preparation before entrance, or a prolongation of the course if such elementary instruction must be included.

The course of instruction should include general principles and the application of these principles in specific cases. Sanitation presents a fair illustration of this requirement. The student can hardly know too much of fundamental science in order to be intelligent as to sanitation. On the other hand, her general knowledge will not suffice unless her attention is directed to specific applications as required in the hospital, in the dormitory in quarantine, in drainage and plumbing problems, and in the attention to food supply. Wise expenditure will not be assured until the student sees all her supplies in relation to the essential needs of the family. In the application of such principles she may balance mosquito netting over against a dainty meringue and decide in favor of the homely but more essential expenditure. There will be no question of administration which is not fastened in some way to such fundamental principles of science or economics.

Here again, then, it becomes evident that the student who is best prepared for her work will bring training in science. To this should be added economics, with some understanding of social problems, and a thorough course in principles of business administration as applied to housekeeping. The first two of these may be secured through intelligent reading, if the student is sufficiently thoughtful and mature. The last-named is not yet "written in the books," so far as housekeeping is concerned. It is probable that no such course will be outlined until some intelligent housekeeper with business ability joins hands with an intelligent accountant who has suffered

from the defects of his own housekeeping. Through the common effort of authors thus equipped we may be supplied with an adequate course in the study of institutional expenses.

This course, for which we all are waiting, should be something more than elementary bookkeeping and accounting. To record in figures amounts received and paid out is a matter of elementary equipment. To be able to study institutional administration, judging clearly as to essentials and non-essentials, cause and effect, values in money, in time, and in labor, the unavoidable wear and tear accompanying everyday use of equipment, the accumulated losses through inconvenience and unsuitable material, the accumulated gains through economical investments and suitable care,—all these and a hundred other kindred matters belong to such a study of institutional life.

It is not likely that many instructors can at the moment be found prepared to map out such a course. Neither is it probable that the young student, unfamiliar with responsibility in expenditure, would understand such topics however skillfully presented. It seems clear that the woman who is to succeed in such administration should have some practice in business affairs in a field where the dollar is given only for value received. The administration of a hospital or dormitory, where the income is supplied without personal responsibility, does not present clearly all sides of this problem. Actual apprenticeship in some specific business would prove of great value to the candidate in institutional management. Perhaps no experiment in the course provided by Simmons College has been more valuable than that which has connected instruction in institutional management with the opportunities offered by the Women's Educational and Industrial Union and the New England Kitchen, which provides luncheons for the high schools of the city of Boston. In the ordinary public lunch-room one must meet the public demand, varying with weather, with holidays, with the procession in the neighboring street, or the accident which blocks the cars. One must learn to make ends meet and to confront emergencies with composure. The school luncheon must be served, wholesome, ample, hot or cold as the weather may dictate, on the exact moment, with lightning speed and unvarying precision. The art of giving much for little must be studied and the demands of the boy-and-girl public carefully considered. All the while the canons of nutrition must not be disobeyed, though the clamoring buyers demand hot doughnuts and pink ice cream.

Such training ought to develop business ability and a clear conception

of a genuine demand. It goes without saying that the student derives value from the experience proportional to the amount of previous experience which she herself is able to supply. The complete course of instruction then, should secure the following:

(1) Understanding of general principles in science, economics and social service.

(2) Knowledge of the principles of business expenditure and general administration.

(3) The application of these principles to the art of housekeeping in specific institutions. This will necessitate (*a*) observation and practice under guidance in some institution; (*b*) interpretation of the observation of institutional life; and (*c*) interpretation and discussion of the practice.

A single year will not suffice for such a course, particularly if elementary instruction must be added to make good deficiencies in preparation. It might be well to require apprenticeship in an institution either between the courses of instruction, or in the midst of such a course. If the students were to enter in September, study, observe, and practice until June, take temporary positions for the summer, and return for a three or four months' course in college after vacation, the value of the present year's course would be more than doubled.

A valuable element in any course in administration are the reports from the field. Such reports may be made by masters of the art or by the beginner, in whose mind the immediate difficulties loom large. Anything which fastens the attention of the student upon the actual problems of the work and forces her to look for remedies in her study, will give point and life to the work. Frequent discussion of letters asking for workers and enumerating the responsibilities attending positions will reinforce the instruction in a vital manner.

Reference has been made to the difficulties attending the use of a college dormitory as a laboratory for practice. This difficulty is two-fold. In the first place, an intimate study of details of administration, with the natural balance of pros and cons with reference to expenditures desired or prohibited, cannot in the nature of things be made by students and discussed by the resident student body with perfect understanding. The range of expenditure never comes within reach of the ordinary undergraduate, who has not yet learned how to measure income and outgo and who rarely keeps even a personal cash account. That the institution should not provide all the perquisites of the home, including the work basket, express fees, and gratuitous

service is naturally incomprehensible to the freshman, and is not always clear to the senior. It is not to the advantage of any institution to have all the details of expenditure publicly discussed by groups who are not familiar with the aggregate cost of maintaining a large plant all the year around, with the expense attendant upon depreciation, accident, or problems in administration. It is therefore a very heroic person who reveals the pages of the daybook to the students of institutional life who are present in the midst of the family. This in itself creates a delicate problem in institutional practice.

Relations with servants may likewise hinder the desired practice on the part of the student. The apprentice of the moment must learn from cook or maid, or at least must stand beside her, and the duties of the latter are likely to be much increased by the fleeting procession of novices, experimenting with soups and doughs. While this may be skillfully managed, it is costly in every way. The fact that a small group must be admitted at one time lengthens the procession and to the servant the completion of the immediate day's task is dominant. Dinner must be served for the family at the appointed hour with ordinary procedure and emergencies met as best they may at a moment's notice. The presence of the would-be helper may therefore, be an encumbrance. On the other hand, to the instructor, the evolution of the pupil is the essential aim and the dinner is secondary. One needs all the wisdom of the ages to deal wisely with human nature under these conditions. We all know that under present conditions of domestic service, the problem just suggested is not a small one. It is a pleasure to record the genuine interest which has been expressed by the employees at the college under discussion, who have coöperated to the utmost in the experiment now being reported. Nevertheless, the problem is evident, and fairness to both sides requires a careful study of the situation. It is clear that the difficulty would be much increased if the superintendent in charge of the housekeeping were not the instructor in institutional management. This double appointment secures unity, and, through full knowledge of both sides of the question, prevents arbitrary enactments.

Further, the dormitory should be first of all a suitable residence for the student, where as far as possible privacy and personal ownership should be assured. The room having once been rented to the occupant, the question of invasion by persons not authorized and perhaps not desired is a serious one. Therefore practice in household arts

or inspection of the room by members of a class may be unwelcome. If so, the enforcement of the practice is a delicate question. No matter how tactful and discreet the practicing students may be, there is room for possible comment which the individual may deprecate or even dread. While this matter may be fairly well managed with a small group in a small dormitory, the difficulties increase with the size in the family and the number for whom practice must be afforded. It is probable that few colleges will permit this form of observation and practice. The general apprenticeship which affords such an opportunity because service is paid for will undoubtedly take the place of the general practice in school or college houses of residence.

Ideals in the Administration of the College Dormitory.

MARION LINCOLN CHAMBERLAIN.

Dean of Women, Rhode Island College.

We all have ideals of what a college dormitory should be and some of us have been so fortunate as to preside over the erection of new buildings and to see our ideals become concrete and alas! not altogether faultless realities. But we Americans are already outgrowing the fetish worship of the 'up-to-date' and are coming to realize the value of that picturesqueness which time and the wealth of association alone can give.

The young women at present under my charge find themselves in a building twenty years old, with the outward charm of an old French château and with not a few of its inconveniences. Their social life centers in a great hall going up through two stories with a gallery around and light from above, a distinctly dignified and beautiful apartment. Here are piano, couch, lounging chairs, etc., and pictures, as many as can be hung without crowding. Such an apartment is ideal for any dormitory. An open fireplace, where a fire is kept whenever the weather permits, is a necessity, the gallery appeals to the romantic age and the pictures have marked effect.

Many dormitories present a choice between a single separate room and rooms shared or rooms in suites, where each girl has a separate bedroom and a share of a common study. Each student should care for her own room. Here is her first chance to practice the application of her lectures in hygiene, euthenics, and household management.

When the room which in the beginning of the year was furnished with a Japanese parasol suspended from the ceiling, from which hung fifty-nine small parasols, all in constant double revolution, with each window defiled by an abomination of tinkling glass, the walls completely obscured by multitudinous and slovenly posters, a hammock swung full across the entrance door, and a couch swarming with pillows, when this room gradually emerges as a restrained and comfortable apartment, then we feel that the seed is taking root.

At some schools the general work of the dormitory is done by students who thus earn their expenses. The organization and oversight of these student janitors is no light matter. As far as possible they should be drawn from students of Home Economics, and the aim should be to train them to regard this work from the laboratory viewpoint. Each one should have her own field and her own ample equipment; then the general labor-saving devices, such as the vacuum cleaner, etc., must be used with careful coöperation. These girls should acquire a sense of the necessary continuity of effort, should learn that the point is less to *make* clean than to *keep* clean, should really know cleanness when they see it, and should be able to attain it by the best modern methods. They should realize the dignity and justification of labor, and they ought to acquire a real mastery over their environment.

Dormitory life stands to most of the inmates as their first experience in community living. The home conditions from which students come are various and go far towards explaining their outlook on life. A friend in charge of a small dormitory allows me to use the following results of an investigation of the students under her charge: Parents living together, the mother not a wage earner, the student is the only child, 10 per cent; one parent dead, 30 per cent; parents separated, 20 per cent; father living but the mother supports the family, 20 per cent; normal homes, *i.e.*, the parents living together, the father supports the family, the student has sister or brother, 20 per cent.

The "only child," the headstrong and impulsive girl whose only knowledge of a mother is a step-mother from whom she is deeply estranged, the girl who scorns her father and is ashamed of her home, or the girl who has earned her own living since she was fifteen and is selfish and suspicious, to each of these the dormitory, with its equitable and orderly life, must speak in her own language. If her life heretofore has been without natural guidance and control, here she comes under just and patient rule typical of the justice and protection

which the state exercises over each of us. If she has come up selfish, overbearing, and self-centered, here in a community of her equals she realizes her debt to society and the joy of paying it. Where the work of the dormitory is done by student help it is easier to train the other students to be just and thoughtful than it is where they depend on paid servants. The student thinks twice before imposing on a classmate who is her superior in all but worldly riches, and she is brought sharply to time for making unnecessary work.

While life in common rubs off corners, and develops coöperation and companionship, forbearance, and the art of living together, its most important function is to awaken the student to the sense of her own inner life, so that she will develop her own personality, to teach her self-control and self-reliance. It is told of Lady Dilke, the original of Dorothea in *Middlemarch*, that when she was living as a poor young student in London, she and a friend were obliged to share a room. By mutual consent they drew a chalk line across the floor from the middle of the entrance door and neither one infringed on the other's privacy. Many American girls need a touch of this spirit. One girl, who confessed that at home she took her naps on the dining table rather than go into another room and be alone, after three years at school, during which she had gone through the stages of room-mate and study shared with another, at last came of her own accord and asked for an entirely separate room, saying that she thought she could study and attend to her work better if she were by herself and that she was willing to forego her share of a study in order that she might be alone—thus showing that she had attained her spiritual majority. Twins who have always roomed together often decide after six months at college that each one would prefer to have her own bedroom.

I consider a separate bedroom an absolute necessity for the best results; studies are better shared and entertaining is best done in common.

In a co-educational institution the question of entertaining becomes a crucial one and it seems only fair to both the young men and the young women that the latter should be reasonably encouraged to play the rôle of hostesses, a rôle they dearly love and through which much valuable training can be given. The following is a reasonable régime: On four or five evenings of the week regular study hours are kept and quiet is maintained. On one or two evenings visits may be paid, entertainments given and callers may be received in the studies and the common room. The study doors must, of course, be open and

the young women are encouraged to club together in their social enterprises. The degree of conventionality to be sought in their social life is a nice question and must follow somewhat the tone of the community in which the college stands if the students are to escape unjust criticism. But the standards should be based on courtesy, fairness, and frank recognition of truth rather than on outworn conventions. Above all else the tone should be democratic, social equality being the keynote of the college life. I think that girls are natural democrats and if they are well handled through their sports and their home life in college they may be given a very strong bent in the right direction.

Dormitory Life for College Women.[1]

MARION TALBOT, LL.D.

Professor and Dean of Women in the University of Chicago.

The usual conception of the college dormitory is so mechanical and its administration so frequently thought to be a matter of rules and restrictions that it is small wonder if, when a new woman student is asked if she intends to live in a university hall, she replies, "Oh, no, I shouldn't think of living in the dormitory. I have had enough of discipline and herds of women, and must live with greater regard to my own personal needs."

The problem of the dormitory contains many more features touching on the inner life of students than the architect, the financier, or even the administrator ordinarily recognizes. The very use of the term "dormitory" shows how little conception college authorities have of the real function of a building in which the student is to receive some of the most profound and lasting impressions of her whole college life. It may be for sleep, it may be for shelter, but it has many other needs to meet, and it should be adapted to those other needs also, and the activities which go on in it should be such as will enrich the nature and develop the character of those who live within its walls, as well as correlate the discipline of the class-room with the demands of life. The framework of the body is of importance only as it serves for the expression of the spirit that occupies it.

[1] The original paper was written for the *Journal of the Religious Education Association*, April, 1909.

For the greater part of four years the college hall furnishes to the woman student nearly all that she has of home life. These college years are precious years in a woman's life. Quite as much as previous years, they serve to establish standards of conduct, of principle, of social efficiency, of appreciation, of discrimination, of moral power, and, because the family and the home are the most effective agents in these forms of education, it is essential that the college hall, in which the woman student spends a large part of her time, should be organized as much as possible like the family and the home.

Side by side with the present-day questionings concerning the effects of modern conditions on the home and the family, there is a deepening realization that the fundamental principles of these institutions are essential for the well-being of the individual and of society and that their permanence will depend very largely on the position of women and the attitude of women toward them. For the sake, then, of the home and the family, those features of social and domestic activity which characterize institutional life must be reduced to a minimum in the college residence, even though it may be impossible to eliminate them all. The student during these college years should be kept under influences which will later make her shrink from those aspects of organized living which involve the sacrifice of the real functions of the home. The boarding-house and the hotel, the rented furnished house, and the yearly moving do not furnish proper means of expression for those principles which characterize the family, and the college woman must learn through her own experience to place a right value on them.

Before outlining the ways in which the methods and ideals of the home can be worked out in the college hall, I would say a word as to the human material to be dealt with. It is a body of eager, teachable, well-meaning, responsive women, no longer girls, entering with enthusiasm upon a great new experience, ready to make the most of their opportunities and characterized by those qualities of intelligence, adaptability and alertness which distinguish the American woman. In these respects there is no difference between those who come to the college from the East, the Middle West or the Pacific Slope. Everywhere, of course, there are occasional exceptions, the giddy, the flirtatious, the vulgar, but they are so rare and unimportant that they need not be considered as a class. Their omission from consideration as a factor in the problem leads to their disappearance. Any system, social, domestic, or educational, in the college which is

based on their needs or on the assumption that they exist in considerable numbers is bound to be a failure, not only for others, but for them. A system which will permit of individual treatment and the speedy elimination of the obviously unfit and misplaced is the only proper system.

The first aspect of the family which should characterize the residence hall is *corporate life*. It should, as Professor Tufts says of the family, "afford an opportunity for training in those qualities of disposition and character which are essential to citizenship." Mr. Flexner's idea of the failure of the college to train a boy to be a member of an organized order with obligations and privileges is quite to the point here. The college hall is not at its best when, to paraphrase his words, it is "a mere mosaic of sharply accentuated personal units." The organization of the group living in the hall should be such, then, as to bring all into relation with all and to have all realize the privileges and obligations which must be recognized if the life is to bring adequate results. I do not mean by this so-called "student government." The term "government" seems to me to have no more place in such a group than it does in a well-organized family. There is no question there of government in all the countless details which make up the sum of the daily life. It is coöperation, mutual understanding, sympathy, generosity and thoughtfulness. In the crisis, the sorrow, and the problem, the greater experience and wisdom of the parents are drawn upon, and likewise in the college home there must be some authority or permanent directive power ready to act in emergencies and to guide the complex group. For complex it must and indeed should be, and there should never be any attempt to grade or classify students in assigning them to college homes. Older and younger, grave and gay, cultured and crude, experienced and immature, gathered in one group mutually give and take in ways which react favorably for all if the right spirit prevails.

The means by which this corporate life may be developed and moral results secured from it are very simple, and again are such as characterize successful family life. One of the pleasantest and most effective is *the exercise of hospitality*. Here the whole household may be brought together, each member with a share in the preliminary preparations, each jointly responsible as hostess, and the occasion may be so planned as to afford opportunity for the use of individual gifts in music, acting, decoration, business arrangements, or social grace, and, what is still more important, to serve as a means of education

in these directions for members of the group who have had little experience or training. Intra-hall social gatherings, large and small, also serve to bring out strong feelings of mutual interest and obligation.

The *architectural features and domestic arrangements* may be made to contribute largely to the success of this phase of education. Convenient, attractive rooms for social purposes, and a flexible system in the housekeeping department are essential. For the birthday party, the entertaining of a mother or visiting friend, or the celebration of some event of interest to a small group, opportunities for special luncheons, dinners or teas should be provided, and equipment for light cooking more convenient and more safe than the chafing dish may be the means not only of great enjoyment and comfort, but of real and valuable training.

In connection with small social and hospitable ventures of this kind there is opportunity for the discussion not only of the unimportant conventionalities, such as forms of invitation and proper methods of receiving guests, but of the more important questions of the chaperonage necessary when the gatherings include both young men and young women, the occasions on which supervision is desirable and the ways in which they may meet with assured freedom because of the certainty of adequate protection under a control which is largely the expression of the public opinion of the group. Men and women may thus have opportunities to meet simply, even frequently, without the feeling of sex-consciousness which is often aroused solely because of arbitrary prohibitions.

Another way in which the moral power which comes from coöperation in a common interest may be secured is through the discussion and formulation of house customs, and the determination of such details as the hours during which quiet should be maintained or the way in which Sunday should be observed. Responsibility for the order and attractiveness of the social rooms, for needed repairs and for the maintenance of a reading-room may be properly shared by the group. Conferences in regard to the renovation of furniture or decorations may serve a useful purpose, while an organized movement to secure needed improvements or additions to the furnishings, such as vases, lamps, or books, may be encouraged occasionally for the influence it fosters.

But the family does not fulfill its sole function when it trains its members to contribute to the efficiency of a larger group. There must always be a place in the family for the *development of individual*

powers. So too, with the college hall. Not only should it serve to make each individual a more efficient part of a larger whole, but it should afford an opportunity for the growth of those moral attributes which should mark human relations whenever one individual comes in contact with another. Persons living in isolated independence, a condition which theoretically has many attractions, lose the chance to gain breadth of view, tolerance of opinion, kindliness and generosity in act and in word, afforded by residence with others. It is a familiar fact that illness or sorrow or perplexity always arouse a spontaneous and unlimited spirit of helpfulness, and opportunities for its expression occur frequently and under many guises in a large household of women. Looked at from another point of view, the intimacy of this corporate life might be held to be a disadvantage as tending to curiosity, impertinent comment or gossip, but the diversity of occupation and interest of a mixed student body renders this result highly improbable.

In a residence hall directed by an educational institution, physical and aesthetic conditions may be effectively controlled, and it is not too much to claim that their ethical value is so great as to justify their careful consideration by competent authorities.

It might be inferred from what has been said that the argument from economy has no place in this statement of the function which a college home should perform. Quite the contrary! While it is true that such educational returns cannot be secured without cost, there is real economy in the investment, or, to put the statement another way, there is great waste in failing to make the investment. This investment means meeting the expense of the architectural, domestic and social devices which make practicable on the impersonal side all the conditions suggested, and the provision of wise and sympathetic leadership, by which the discipline gained in the class room, the library and the laboratory may be made a part of the daily living of every individual.

Not to make it means the failure to provide just the opportunity to acquire that power of expression, that facility in social intercourse, that ability to meet situations of an unusual and unexpected character, that dignity and poise, which insure that the intellectual and scholarly results of the academic experience will be made available in full measure.

Whether these influences will be completely realized or not will depend largely on whether the intellectual interests which are the basis for this collective life are given opportunity to contribute to

the life of the student. If in any institution the women have less than full recognition in the intellectual privileges, if there are not women in faculty and administrative positions of high rank, if the attitude either of the faculty or of men students towards the intellectual life of the women is patronizing instead of friendly, neither college hall nor any other device can make good the damage so wrought. Freedom in the generous restraint of family life can contribute to intellectual self-respect, but it can never be a substitute for the self-control and dignity growing out of the realization on the part of the individual that she shares with full and equal freedom in the intellectual wealth of the group of which she is for the time a member.

It is to be hoped that what has been said justifies these suggestions in the presence of this particular body. Just as in the daily life of the home, the principles not only of right living but of righteous living must be translated into terms of habit, so in the college substitute for the home there must be large opportunity for fine appreciation of the rights of others, delicate feeling for the needs of others, and an ever-widening sympathy, not only with the truths of nature and the facts of history, but with the frailties and the aspirations of human nature. It is from the natural relationships and problems of simple every-day life that may be secured the fine democracy and social power demanded of the educated women of to-day.

EDUCATION FOR ADMINISTRATIVE WORK.

Qualifications and Training of the Head of a College Dormitory.

LYDIA SOUTHARD.

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In the editorial of a recent magazine it was pointed out that a cynic does not become an expert, because to possess the authority of an expert a man must share in the movement of life. In no other way can he understand that movement.

Applying this general truth, a woman who is a cynic should never find her way to the headship of a college dormitory. One of the first requirements for the person who is to guide and direct others is a broad, deep sympathy, not sympathy of an emotional type, but the unfailing ability to see a situation through another's eyes, and to make him feel that his view of the case is not despised, even though the decision may go against him.

This requires, of course, the fundamental ability to see two sides of every question, and it means experience. This is not necessarily technical experience, nor is it always of the sort which makes the best showing on the application blank of an agency. It is a past record of sincere and straightforward dealing with every situation that one's personal life has brought. It is knowledge of struggle, of defeat as well as triumph, of discouragement, of waiting and of hard work.

But experience, to be complete, requires the brighter side also. We should know how others feel in gayer mood. We should be able to throw aside dull care on occasion and command enjoyment. Within the limits of refinement, the broader that field of enjoyment, the more useful we shall be in our relations to other people.

We are sometimes asked if the head of a college dormitory should be a college graduate. My own feeling is that this is not a necessity, but that it is very desirable. The fully equipped woman, fitted for her position by natural gifts, as well as by long and varied training, will surely find recognition in time. The college degree is an intro-

duction in academic circles, and in those places which are slow to receive domestic administration on its modern professional basis the possession of a degree may hasten the coming of that unquestioned position in the community which the head of the dormitory has a right to expect. Other things being equal, the degree sets a stamp upon her standards and her tastes and shows her to be already in touch with that life whose social and business relations, at least, she should henceforth represent. The head of a college dormitory has no more right to be a mere superintendent of servants than a college president has to be a recluse and an ascetic.

Should the head of a college dormitory have had student experience in this kind of work? Shining examples of success without this are undoubtedly on record, but as a rule the woman who enters dormitory work without having somewhere, sometime, been in close contact with numbers of other women subject to the rules which govern educational institutions, is at a disadvantage. How can she properly formulate regulations unless she knows what it would mean to keep them? How can she be thought by the students under her care to understand their needs, unless she can quote similar experience?

Another requirement is whole-hearted enthusiasm. A modern English writer has said that "To hurry in Egypt is just as wrong as to fall asleep in Wall Street, or to be found in a Greek theater reading How to Make a Fortune with a Capital of Fifty Pounds." To enter dormitory work with divided heart and preoccupied mind is worse than any of these things.

One occasionally finds a dormitory in which the work is divided into several coördinate departments, the head of each being answerable directly to a president or dean. This however, is an unusual arrangement, and the woman who would devote herself to the management of dormitories should be prepared to direct all phases of the work. She must understand the food question from the point of view of nutrition, economy, attractiveness. She must be a student of dining-room and kitchen service, and incidentally, a student of the psychology of those who eat and of those who serve.

Some of us believe that in the near future most colleges will own and direct their own laundries, and that this natural field for women, which is fast becoming thoroughly scientific, will attract some of the best trained minds. Long steps in this direction are already being taken, and the sooner our heads of dormitories come to know the latest ideas regarding this exceedingly important work the sooner will they

wish to help incorporate it in their own institutions. I hope the time will soon come when all who are studying for dormitory supervision will elect courses in institutional laundry work.

The subject of buying is immense and inspiring. When we consider that the simple furnishings of a college dormitory affect the health and happiness of hundreds, as college generations come and go; that the conditions under which these articles were made affect the well-being of thousands; that the selection and purchase of these furnishings mean either waste or economy for the institution; then the subject of buying becomes one of profound interest. No class room can supply all that is needed. The desultory visiting of stores and factories is not enough. Theory and practice should go hand in hand. Add to this visits to various institutions and consultation with the proper authorities. The experience which they offer for the common good is often valuable.

The special training for the head of a college dormitory thus embraces every department of domestic science. It should consist of the very best that reference books and experienced teachers can provide. I cannot emphasize too strongly, however, the fact that even this is not enough. Laboratory work is excellent, but it must be reinforced by field work. This should be of two kinds. The trained woman should not only know how to do the humblest task with her own hands, but she should have opportunity to test herself in this, under normal conditions. If she does not know how much time and effort are required to perform, in their natural setting, the ordinary domestic duties of an institution, she is not well prepared to organize her future household with any degree of fairness. She should also have practice in planning and directing the work of employees.

Two years of training in which theory and practice are wisely combined is none too much to devote to the preparation for so important a work. Even then a woman is wise to accept an assistant's position for a time, until she becomes throughly adjusted to the new duties.

It is perfectly true that circumstances sometimes alter cases, and that personalities frequently alter them even more. However, after seven years of the closest observation of these positions, and of the manifold demands made upon the women who fill these posts, I am more and more convinced that to shorten the period of training is usually only to make the work more difficult, if not less satisfactory, later on.

We are living in an age of restless protest against waiting of any kind. When we emerge from the training school we wish large salaries at once. The high cost of living is partly responsible for this, but another factor in the case is our ignorance of the pitfalls which await the inexperienced. If, when we leave the technical school, we could foresee these we would, I think, be more willing to walk with a guide for a time, even though the pay is proportionally less.

I believe that deliberation and thoroughness should be urged upon every woman who can possibly so direct her life, and that she should approach the care of a dormitory with thoughtful modesty. I ask you if hers is not, indeed, an all-round life. The duties and the privileges of it are worthy of the highest type of womanhood, plus the most liberal education that she can possibly obtain. Hostess, chaperon, friend of student and of employee, general administrator, dietitian, sanitary expert, buyer, all of these she may and perhaps must be, even within the limits of the same institution. An overburdened life, you say? No, a splendidly full life, a nobly stimulating life, a life which leaves little time for self-interest. The woman whose mind is set upon personal advancement should seek other lines. Let us say with Mrs. Browning in Auora Leigh: "Get leave to work in this world, 'tis the best you get at all;" and again, with another writer: "We enjoy ourselves only in our work, our doing; and our best doing is our best enjoyment."

Essentials in the Training of the Dietitian.

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The requirements in training the institutional dietitian must be determined largely through the needs to be met by her in the institution. These must be interpreted by the management of the institution, and modified by reports of institutional experience by women of Household Economics training, who are thus competent to judge whether their training has adequately fitted them for the work required in this field.

The needs of the average institution are summarized briefly in a recent paper on institution management, by Miss Patten, of the

Boston Young Women's Christian Association Home, and I take the liberty of quoting them, slightly adapted: (1) A liberal education for the quality it gives the woman herself and through her to others; (2) understanding of and sympathy with those among whom she works; (3) executive ability; (4) expert training in household management; and (5) business knowledge.

Unquestionably the liberal education, the equivalent of college work at least, supplies the most secure foundation on which to elaborate the necessary technical training, and affords the desirable background, represented by the trained mind. The technical training must be founded in pure science and to such work must be brought the trained mind.

The first requirement, a liberal education, should insure the second, that of "understanding of and sympathy with those among whom she works" through arousing her interest in social studies; and these two requirements should insure the factor so essential to successful institution work,—that of a comfortable, reliable personality.

The third requirement, that of executive ability, cannot be produced by any system of any school so far known, but may be developed by opportunities for practical work, provided there is a degree of such ability native to the student. Hence the importance of carefully selected and directed practical work in connection with training, and hence also, the futility of encouraging students with no native executive talent, to train for such positions as institution dietitians; their disappointment in their profession will only be equaled by their employer's disappointment in them as executive heads of departments.

The fourth requirement, expert training, must have its foundation in the exact and natural sciences, and in the group of studies represented by the subjects economics, social science, psychology, and education. These subjects may be pursued in the college and be followed in the technical school by the development of their application to the institution field, together with practice work in conditions approximating the institution field; or, what seems an economy of time to the mature student who has definitely chosen the institution as the field of her future work, the pursuit of groups of fundamental courses may run nearly parallel with the group of applied courses, all within the college period. This is now done in some colleges.

Mention must also be made of a third method, which has been followed by some technical schools—that of accepting pupils with little or no foundation knowledge in the groups of studies mentioned,

and attempting to make good this deficiency at the time of giving the technical training, all in the space of two years or less. The result in the graduate of such a school is an immature, untrained mind, unsuited to the demands of institutional life and work. Longer and thorough training is to be desired not alone for proficiency in technique, but also for the maturing of the student's mind, the formation of standards and the development of judgment.

There is given below a classification of the groups of courses fundamental to technical training of the dietitian, and with each group the corresponding group of technical courses—representing the direct application of the fundamental courses. (It is impossible here to attempt prescribing the exact amount of work which should be done in each subject, and this can, I believe, best be delegated to a committee on curriculum. I should say, however, that it seems wise to class all of the work here outlined as *required* work, and to expect a certain amount of elective work on the cultural side.)

PREVAILING COURSES FOR THE TRAINING OF THE DIETITIAN.

FUNDAMENTAL COURSES.	APPLIED COURSES.
Group I.	
General inorganic chemistry	Food production and manufacture
Organic chemistry	Household chemistry
Analytical chemistry	Fuels
Physical chemistry	Physiological chemistry
	Nutrition
	Food economics
	Dietetics
	Institutional dietaries
	Marketing
	Textiles
	Laundering
	Sanitation
	Housewifery
	Food preparation
Group II.	
Biology, bacteriology	Food production and manufacture
Natural history	Physiological chemistry
Physiology	Nutrition
	Food economics
	Dietetics

FUNDAMENTAL COURSES.	APPLIED COURSES.
	Sanitation
	Laundering
	Housewifery
	Food preparation
	Hygiene
	Home nursing
	Emergency nursing
Group III.	
Mathematics	Principles of accounts
	Records
	Estimates
	Reports
	General business technique
Group IV.	
Economics	Buying
Social science	Business management
Psychology	Food preparation and service
Education	Selection of employees
	Organization of service

The foregoing classification covers the general scheme of standard courses of study in our technical schools at the present moment. But there is criticism of it, both from institutions and from graduate dietitians, as to the meager practical work afforded in food selection, marketing and buying in general, ordering of meals, preparation of food, and the organization and direction of service.

The character of the criticism would indicate *not* insufficient instruction in the fundamental groups, *nor* want of application of these principles in the laboratory and field work offered by the school, but an *insufficient amount* of laboratory and field work, particularly of that sort affording conditions approximate to those found in the institution. Over and over again has the graduate worker demonstrated her ability to analyze and criticise conditions in her field of work, and at the same time demonstrated her want of ability to *maintain* in harmonious and efficient movement the complicated machinery of the dietary department. This is undoubtedly due to the emphasis given by the school to the development of the student attitude of mind and method in all work, at the expense of the acquisition of skill through *practice* work. The development of the student method of work is admittedly a necessary step in her preparation for useful work, but

it should be balanced by a large amount of practice in handling the problems of routine and emergency character peculiar to the institutional dietary field. She would then have so assimilated the fundamental principles demonstrated in the class room, as to be no longer conscious of them. The good habits of work formed in well directed, plentiful practice would have become her tools, and she would then proceed with confidence and ease in the handling of her routine and emergency problems. When she has reached this stage of efficiency and not until then, will she be truly useful to the institution, "worthy of her hire" and of the professional recognition she desires.

In this connection one is reminded of the critical inquiry often made, regarding the scope of dietitians' work, "Why should she concern herself with the practical handling of the work, the housekeeping aspect? Why concern herself about fuel, employees, furnishings, uniforms? Does not her training prepare her to criticise and advise in regard to diet, and is that not enough for the institution to expect of her?" The answer to such queries comes through years of experience in such work. Institution management more and more recognizes that permanent results are seldom achieved, indeed results of any sort are rarely attained, through *mere criticism and advice*. The regulation of dietaries, the improvement of food preparation and service, the reduction of waste—all are brought about through the *intelligent control* of contributive conditions—the immediate direction of employees and their recognition of the authority of the dietitian. She may "advise" or "recommend" that the refrigerators be cleaned regularly, but if she has not the authority to require this done, how can she be responsible if through another's neglect, the refrigerators are not cleaned, and food is spoiled and wasted in consequence? In the minds of many she will still be responsible, and her reputation is thus at the mercy of those who can not or will not coöperate with her. *Without* authority in her own department she cannot secure results which represent her fairly; and *with* authority inevitably comes responsibility. Thus we have the dietitian who actually controls the food service of her institution also controlling the employees of that department—supervising their deportment and uniforming, regulating their duties in the handling of food and equipment, and thus organizing her entire department for efficiency in food service.

Where she is hindered in the exercise of this authority, or where she is incapable of exercising it wisely, imperfection will result in the character of food service. When deprived of authority, she is helpless to secure results, and without results her position is not justified.

Something should be said of the precise nature of the practical work to be included in the training of the dietitian. Much of that previously mentioned (marketing, administrative work, etc.) can be obtained only in the actual field of the institution, where as a pupil dietitian she may develop and test her own strength in the capacity of assistant to an experienced dietitian. These opportunities now occur in many hospitals and college dormitories. At the present time, such work is taken at the option of the student upon the completion of her school work, and for it she receives recognition from the hospital, but not from the school. It would seem wiser if the school would recognize such practical experience as extension work in a field not provided by the school, preferably withholding its diploma until this field work is completed. The college offering domestic science courses and having its own dormitories is in a position to supply the field for practical experience under the control of its own faculty, and can give credit for such work toward diploma, certificate or degree.

In the practical work of food preparation, more experience is desirable than it is now customary to give. Graduates generally agree that their training on this side has been too small for the acquisition of skill. Of the special form of cookery known as "institutional," it must be admitted to be practically impossible to duplicate institution conditions in a school "laboratory kitchen," but the college dormitory kitchen and lunch room kitchen offer opportunities for experience under direction.

It is extremely difficult to obtain through courses now offered practical experience in marketing and buying. Still, these may point the way and afford an outline for future work to be carried on in the individual experience of the student. Actual knowledge of the food products of the world, and judgment formed by experience in handling these, should be part of the equipment of the dietitian for her work.

To those of us familiar with courses of study offered in Household Economics, it is apparent that the length of time required in preparation for work as a dietitian must inevitably lengthen. This will not necessarily take place in the technical schools through additional courses, but will be evidenced in college requirements including the fundamental courses outlined, and later in the requirement of from six months to one year of practice work under supervision. Probably six months of this could be taken under school direction and credit given accordingly; the second six months might well be taken in a

field of different character with maintenance provided. It would be safe to suppose the student capable by that time of rendering sufficient service to constitute her apprenticeship a mutual benefit to herself and the institution.

I would not close without repeating, and emphasizing if possible, what has been brought out several times to-day—the institutional field is too important, there is too much at stake in the institution, to admit of the employment therein of women not prepared to carry full responsibility; the present training afforded is not adequate on the side of practical work, nor of sufficient length to permit of the development of the average student to the necessary sense of responsibility in her institutional relations.

It would seem that important work for this conference would consist in making a thorough study of these conditions and eventually recommending the courses of study and the nature of the special training necessary in order to meet the requirements of the institution for the dietitian.

Practice Fields for Students in Institution Management Courses.

MARY URIE WATSON.

Macdonald Institute, Guelph, Canada.

It is only a few years since the idea that domestic science teachers required special training and practice teaching was recognized and provided for. The idea of practice fields for institution management is to-day quite new, but will soon be generally accepted.

The domestic management of large institutions, hospitals, schools, dormitories and asylums cannot be conducted in the same way as in a single family. So far such management has been solved by capable subordinates through their own powers of observation. When opportunities offer they are given the chance to prove their capacity. Some are plunged into such work and are left to sink or swim, and it is wonderful how many do learn to keep their heads above water. Very few have special training, and no training school can provide practice in actual conditions and prepare for an independent work. It is cruel to send a fresh graduate in all ignorance of institution life into full responsibility for such work.

The apprenticeship system is the best and only practical solution. It is the same idea as practice teaching in all our normal schools; only the field of practice is larger. The students must have opportunity to study the field, to make plans for supervising, equipping and running such plants and to have their plans and performances discussed by a competent critic.

The essentials for such an apprenticeship system are: First, that the authorities and superintendents of such an institution should be in entire sympathy with the idea; second, there must be an exceptionally competent housekeeper or matron who has the teaching spirit. Difficulties must be found out and ways to meet them devised. The institution housekeeper must be so able to utilize the work of apprentices as to make it worth while to have them come. When boys spend five or six years in learning a trade, the work they do is of value to their masters. Teachers and housekeepers, as well as administrators, must do work of value. An apprentice should be willing, on graduating from her training courses, to work for her living and a small salary in return for the hardest work she can give. She should be mature and have good home experience. She should have native executive ability and special training in the fundamentals of all institution work.

The Pupil Dietitian.

GRACE E. MCCULLOUGH.

Massachusetts General Hospital.

The outcome of the section for dietitians which was held at the time of the annual meeting of the American Home Economics Association in Boston, in December, 1909, was the opening of the doors of the Massachusetts General Hospital, Boston, to pupil dietitians with a view to furthering the subject of hospital dietetics. At that time an earnest appeal was made to hospitals, domestic science training schools and students. The time and harvest were ready, but the laborers were few.

Miss Florence E. Crapsey, a graduate of Teachers College, was the first to apply and was accepted. She completed the course in October most satisfactorily and writes of the work as follows:

The course consists of three months without salary, but with maintenance, the time and work of the pupil being directly under the supervision of the resident

dietitian. Forty-six hours weekly plus ten hours every other Sunday were spent on duty. The management of the diet kitchen, insight into the main kitchen, daily ward supervision during the serving of meals, the ordering of food stuffs, the preparation of formulae for infant feeding, along with other special diets, constituted the work.

The training has afforded knowledge of the practical side of a dietitian's work along with some theory and new scientific facts; given an insight into the treatment of certain diseases caused by errors in diet and the preparation of proper diets; fostered the ability to manage adult students; made familiar the routine life of an institution; assisted toward the control of the cost of living with the present high prices; shown how to cope with the labor problem; given confidence, and extended the scientific knowledge gained at college by its application.

While many smaller hospitals may undoubtedly give certain opportunities, it is only in a large one like the Massachusetts General, which is well organized and systematized, that one can get full benefit of the time expended.

A course of lectures was also given before Miss F. M. Farmer's Summer School of Domestic Science (1910) upon institution management, with special reference to the dietary department. The building and location; the kitchen and its permanent and portable equipment; cold storage, and storage space; food, a system for order, purchase, care and economy; some phases of the help problem; and an outline for a diet kitchen, touching upon a few special diets for special diseases, were among the topics discussed.

Preparation for Institution Management.

FLORA ROSE.

Cornell University.

So many people are asking what the schools and colleges where Home Economics is taught are doing to train women for institution management from the personal point of view, with reference to the one who is to administer the work, that it does not seem amiss at this time to look ahead a little and tell something of the plans which Cornell is making for a course in institution management.

Training for institution management presents a complex problem, for it necessitates a range of practical experience built upon a thoroughly scientific foundation. In planning for this work it is our belief that a four year college course is none too long to give the systematic, all-round training needed as much here as in any other line of work. Institution management will, therefore, take rank with other college

courses. The training will include the same two-year foundation of work in biological, physical and social sciences as is required for other courses offered under the name of Home Economics. The same fundamental food and dietary work will be given as to those who expect to be teachers. A way, however, had to be found for offering real and practical experience in work along institution lines. Just as a medical college must have clinics for the development of its physicians, teachers must have experimental schools; therefore, courses in institution management must develop in connection with some institution.

This year the New York Legislature appropriated $154,000 for a Home Economics building at Cornell. In planning this building there were always in mind the manifold sides to Home Economics and the need for giving an opportunity for specialization in various lines of activity. Since there was to be a new building, it seemed best to take this fact into account at once and to develop the building to meet our own particular needs.

As the plan now stands, the basement, which is to be parterre, will contain a cafeteria where as many as 1500 persons may be served. This cafeteria will be under the management of a trained woman with a place on the Home Economics teaching staff. Under her jurisdiction students specializing in institution management will gain a first hand knowledge of economics, physiology, and psychology of the feeding large numbers.

A small commercial bakery and laundry, also to be used as 'experience' laboratories, will complete the basement plans. Besides the usual food laboratories, common to all Home Economics departments, one floor of the building will be given over to a dormitory accommodating about thirty students. This will also be used as a working laboratory for those students specializing in institution management, and it is hoped that many practical dietary experiments may be carried out there. It will also be possible for students to obtain further experience by observing methods in the larger women's dormitory of the university, where some three hundred persons are cared for.

Additional Points Brought Out in the Discussions and in Correspondence.

Standards of Training.—Women say they can get good wages without training. Why then spend money to learn? It will take time to educate both women and institutions to the need of this training.

On the other hand, the inquiry often comes to leading workers, "Can you find us a woman who is trained?" Nothing is even said of salary, the need is so great. We might begin with shorter training to meet the present urgent demand and then develop. The training to-day is better than anything we have had before. Some institutions already require that a dietitian shall have two years' training.

All the training and theories of all the schools cannot give a woman the ability to "get under a big job" as hotel men say. This is a matter of native ability and executive traits.

In fixing standards for certified public accountants in New York it was necessary for the legislature to enact a law which threw out of business some men who had signs out.

As previously noted, it was voted that the American Home Economics Association appoint a committee of five to formulate standards for training for institution management.

Apprenticeship.—The length of time ordinarily available for apprenticeship work was felt to be too short, one month often being spent under one head and perhaps two months with another. An institution also suffers from such apprentice work. Six months at least is needed and two years would be better if possible.

In Canada more and more applications are being received from mature women who have already had good experience in household affairs; sisters who have kept house for brothers and are stranded when they marry often show remarkable ability.

Should there be an age limit? Mechanics Institute requires candidates for lunch room work to be at least twenty-five years old. No younger woman could do the work, and she should be thirty for factory and school lunch room positions. There are often very trying conditions, employees being proverbially hard to suit and sometimes discourteous.

Is it a matter of the almanac or of tact and temperament, was asked. Institutions which are able to offer the best practice field for apprentices often cannot afford to take them, while those institutions which take them to save wages will not teach them well and are poor places for apprentices. On the other hand, if an institution gives $100 worth of time for $25 worth of work it is a good place for apprentices but serious for the institutions. Is it not possible to have a few recognized practice institutions of the right kind?

METHODS OF ORGANIZATION AND CONTROL IN INSTITUTIONAL DEPARTMENTS.

Menus and Meal Systems: A New Plan.

ANNIE DEWEY.

Lake Placid Club.

There is much talk concerning the high cost of living, but few practical suggestions as to how to lessen this cost and still give the comforts and luxuries which to many have become necessities. Much lavish expenditure is due to thoughtlessness and early habits of extravagance which cultivate needless waste.

As man grows prosperous his first indulgence, as a rule, is in increased variety and expense of food. When he entertains, all parts of the the world are taxed for costly viands, and skillful chefs are paid more than college presidents.

The day laborer takes his dinner from a single plate with but one knife, fork and spoon, while the guest at a modern banquet uses some thirty to fifty articles in china, glass, silver and linen. There is no other function common to man which so stamps his ideals and attitude toward life as the simple act of eating.

Nature is lavish with all those elements that must meet man's largest needs, air, water, fruit, grains, and vegetables, but she is equally sparing with those which it would not be for his benefit to use freely. Nitrogen, so essential for both plant and animal life in proper quantities, brings heavy penalties when used too lavishly, and so "men dig their graves with their own knives and forks," not realizing that it is a surplus of nitrogenous food, the most expensive of all, viz. the animal proteids, which is directly the cause of very many of our modern diseases, in some form of auto-intoxication. Mrs. Richards says: "Public men are dying, not of overwork, but of their dinners."

The modern problem of feeding large numbers has resolved itself into a choice of meal systems known as the European or à la carte, table d'hôte, American, and various combinations of these three.

In hotels and restaurants, where many tastes must be met, custom has established a long menu with a bewildering choice of expensive nitrogenous foods, the most costly the market affords. A recent study of typical lists shows in one case as high as 541 distinct articles served to order at a single meal, 379 of these being either meat or fish in some form. This is supposed to be the demand of the better class traveling public. In many such places a duplicate staff with separate chef comes on for night duty and meals are served at all hours. Expenses are enormous and the public must pay in proportion. Such food soon acquires a money flavor from its costly price. Simplicity is naturally promoted but there is an unfortunate tendency to shut out vegetables. A man often makes a meal on porter-house steak, reversing the relative proportions of protein and carbohydrates required for the best nutrition. The limitations of table d'hôte service seldom give sufficient choice to meet individual needs and peculiarities of diet. Where followed regularly, the special orders required are numerous. "To eat a table d'hôte dinner is like landing a fish which has been hooked and played by some one else."

Children brought up in American plan hotels and allowed to choose freely from a varied menu, soon acquire the habit of extravagance and mix many kinds of food, some requiring a long and some a short time for digestion, and are especially prone to overeat in meats and sweets. The seven-year old daughter of a college professor was seen to have five desserts before her which she nibbled, tasted and wasted, the only comment of her mother being "Why, Margaret!"

A young man ordered one morning for breakfast two services each of chops, steak and broiled chicken and then sent for a third order of the chicken.

During the last decade, while the cost of living has been steadily advancing, hotels and restaurants by the hundreds have changed from American to à la carte system, being forced to it by the growing waste and extravagance. One manager fixed a date on which this change would go into effect and noted carefully the result with one man who usually had specially hearty breakfasts which at à la carte prices would average to cost over $2 each. His first order on the day named was a pot of coffee and two boiled eggs. He drank one cup of coffee, ate one egg and then asked the waiter to save the rest for his wife, who would be down later.

A growing number of people take regularly only a continental or light breakfast. Others have learned that meat not more than once

a day, especially in warm weather, is far more healthful. It is certainly unfair that these persons should be taxed for the waste represented by the young man who wished seven orders of the most expensive meats at a single meal which would have cost him à la carte over $5. It seems as unfair to charge all persons the same price for meals as it would be to make all laundry bills uniform, allowing each to send as much or as little as he chose.

Summer resorts are the last stronghold of the American system. Europe has never adopted it, a limited table d'hôte being the nearest approach.

In the effort to provide college students with satisfactory meals at the lowest possible prices, Harvard University has tried some interesting experiments at Memorial Hall for several years, which have been copied at Yale and elsewhere with more or less success. As formerly conducted on the American plan, Memorial Hall showed, on a conservative estimate, a waste in meat, fish and eggs amounting to about $900 a month or over $8000 for the college year. Men used to boast of three, four, and even six large orders of hot roast beef at a single meal, three quarters of a ton of raw ribs of beef, costing over $200, being required for one meal. Each man ordered as many helpings of everything as he pleased. Waiters were liberally tipped and brought more plates of food than were ordered, these got cold and were wasted. Many ordered more than they cared to eat, so as to select the best. The point was that they were not directly paying for it.

In 1903 the new system was introduced whereby a fixed price was charged covering certain essentials or constants for each meal which would give sufficient plain nourishment to support health. Bread, butter, cereals, soups, most vegetables, tea, coffee, and milk were on this list, while cream, eggs, fruit, fish, meat, salads, and desserts were paid for by coupons at cost price. These coupons (alimentary canal mileage) were like so many postage stamps. No slips or signing of order blanks was required but a checker at the door examined and passed each tray. Every man thus had just what he paid for. Tips and fees were abolished and waiters were paid increased wages for efficiency, based on length of service, the price being raised for three successive years for all who were efficient enough to be continued in service.

This plan with some variation was in operation about six years when it was announced that the dining association was in debt over $100,000 and that Memorial Hall would be closed. It was, however,

reopened with a changed plan, a simple table d'hôte meal being served at a fixed price and each menu having a list of special dishes which could be had on written order at about cost. A fuller separate list offered larger choice by "delay of order" cooking.

The average membership of late has been 800. Were it possible to keep 1000 members during the entire year, excellent board could be furnished at a low price. There are always certain fixed charges which must be paid irrespective of numbers, and 1000 students are required to meet this cost. All above this number contribute to profit, whereas any shortage adds to the deficit.

It is usually supposed to be much cheaper to feed large numbers from a common kitchen than for families to keep house separately, where, as in block after block of city homes, different cooks are paring potatoes and doing about the same things at the same hours for small groups. There seems to be some fallacy, however, when we find that it is impossible to give students simple meals at $5.50 a week with a membership under 1000, especially when no rent, taxes or living quarters for servants are required, as in the case of Memorial Hall, and when all modern labor-saving devices in equipment are supplied. The Hall is, however, carrying interest charges on the old debt.

As a matter of fact, when many live together they have, besides individual needs, common needs which have to be supplied at common expense. Three hundred years ago the water system of New York probably consisted of a town pump, whereas the new Ashokan water works when completed will cost $300,000,000. New Yorkers to-day pay water taxes of $12,000,000 a year. Streets, pavements, sewers, police and fire protection have similarly developed.

Where every expense connected with preparation and serving of food must be fairly included, the results are somewhat astonishing. Recent records of the Lake Placid Club show that the number of guests in August reached 808, the average number for three summer months was 504, and for the entire year 167. About 400 employees were fed in midsummer and 50 or more in winter.

Among the common needs, express, freight and teaming for the table alone were $5024. Laundry, including not only that of table linen and towels (side, silver, dish and cooks') but uniforms of cooks, tray boys and waitresses, fuel, ice, light, water, rent, breakage and depreciation of china, glass, silver, table linen, cooking utensils and other kitchen and dining room furnishings, railway fares, uniforms,

rubber heels and other supplies, came to $29,968, a per capita daily average of 49.8 cents. Wages for the year averaged 42 cents and raw food materials $1.13 per guest. The care of rooms cost 10 cents each. Meat, fish and eggs (with milk and cream), the expensive nitrogenous elements, constituted nearly two-thirds the total cost of food.

In addition, every summer plant is equipped and manned to meet the needs of the largest numbers during the few crowded weeks in August. An expensive cold storage plant with butcher and assistant, a grocery store with a special book-keeper and helpers, large refrigerators and coolers with each kitchen, and enormous ice supplies are required.

Comparisons with several other resorts of similar grade confirm these figures. In one case the food per capita was $1.17 and wages 40 in place of 42 cents, waitresses being paid less and expected to make it up in tips and fees. In another, where the menu showed greater variety, the food cost $1.25. Curiously enough, not a single resort made a per capita allotment for common needs or had any system of accounts on which such could be based.

Studies show that with an average family of six persons, without a servant and usually in a rural region where part of the food comes from the garden, it has been found possible to support health on a rather monotonous diet at an average daily cost of 10 cents each for raw food materials.[1] A well-to-do family of the same size having one servant and some outside help, spends about 16.6 cents for wages and 61 cents each for food daily. In prosperous families with two domestics, wages run from 20 to 28 cents a day per capita and food varies from 60 to 75 cents or more, according to standards of living. It is even more difficult to estimate common needs for individual homes since separate account is seldom taken of small items which melt into general living expenses. Food and wages alone are usually estimated in both families and resorts. On this basis the two types of families quoted would spend from $140 to $185 a month in the home, an average of $162, while the Club figures would make the actual cost $279 a month. Adding fixed charges and the care of rooms which family wages cover, the total would be $387 a month, if all were adults.

The term calories as the measure of food units is becoming almost

[1] U. S. Dept. Agr., Office of Experiment Stations, Bul. 221.

as common as the term horsepower in engineering. Science has proved conclusively that of the various nutrients needed to keep the human machine in the best condition of health, the amount of the most expensive foods is the smallest. Dr. C. F. Langworthy of the U. S. Department of Agriculture claims that 100 grams protein, with fat and carbohydrates enough to make a total energy value of 3000 calories for adults with active exercise, is a proper standard. This standard, it must be remembered, is offered as a guide for homes and institution management, and not as an expression of physiological requirements. As these quantities should vary in proportion to age, height, normal weight, skin surface, amount and kind of exercise, and other factors, the question of food becomes peculiarly an individual one, and the only fair solution seems to be for each to pay for such expensive foods as he needs or insists on having because "they taste good."

Man has long studied a balanced ration for his cattle, his horses and his hogs. The application of science to his own needs, an intelligent effort to preserve the equilibrium of elements with which nature has endowed him, would not only create a balance in favor of health and efficiency but increase the bank balance also.

If the desire for simpler living, so often expressed, were really genuine, the people of large means who can live as they choose would set the example, as a matter of principle. Men have learned that educational forces pull from the top, they do not push from the bottom. In Hindu philosophy the man or woman who has the smallest needs is considered to be nearest perfection; he becomes the ideal of the nation since they place the spiritual plane above the worship of wealth, the power of money. There were no saloons or slaughter houses in India till the British government established them. A high caste Oriental said of Anglo-Saxon beef-eaters: "Each stomach has become a cemetery and every tooth stands like a tombstone."

Men create tastes and then say they cannot live without them. "Simple living is not equivalent to poverty, nor does it mean ignorance. It is the result of the highest education, the moral and spiritual training of the soul. It includes sincerity of thought, word and deed and has been held in the Orient from time immemorial as the best means of attaining to perfect peace and happiness on earth. Simple living does not mean a life of retirement, that we must go out of the world and live in forests and caves, but it means absolute obedience to the laws which govern our physical, mental, moral and spiritual

being." Simplicity as a modern ideal means comfort without luxury, material conveniences which make for efficiency rather than effeminacy. A menu based on these ideals, in place of offering everything which the market affords to tempt worn out appetites, would aim to meet certain essential principles.

(1) *Select foods that are in season.*—A German proverb says: "To eat asparagus in January is not only to waste money sinfully, and to eat a tasteless vegetable; it is to introduce a discord into the harmonious scheme of things." We naturally associate seasons of the year which certain foods and in so far as we depart from this principle the highest enjoyment of such food is dulled. Avoid canned fruits and vegetables as much as possible, keeping the fresh zest of their enjoyment for their appropriate season.

(2) *Delicate seasoning:*—A famous French chef said: "Monsieur, I am very pleased that none of the gentlemen last night touched the salt cellar. I could not desire a finer compliment." A cook having any self-respect or any respect for his art has a right to feel insulted if a guest powders his food with salt and pepper before having tasted it. Some one has said: "The cruet stand is a hideous and ever present reminder of the wretched state into which the art of cookery has fallen in Anglo-Saxon countries. Seasoning is the business of the cook and cannot be imparted afterwards."

(3) *Simplicity, with variety from day to day.*—This means enough reasonable choice at each meal to meet the needs of different ages, tastes and digestive powers, seeking the best quality of foods and sanitary and hygienic conditions, and aiming always at the perfection of each individual dish, and that it be served with the least possible injury from delay. The most artistic and the most wholesome ways of preparing foods are usually the simplest.

(4) *Right combinations of foods.*—Instinct seemed to guide refined taste long before the scientific reasons for certain combinations were understood. Custom has so sanctioned these that there has grown up an elaborate creed or etiquette of good form for the palate; but "the art of cooking, like that of dining, should be exempt from the caprices of fashion. The principles of both these arts are eternal and immutable."

The preparation and serving of meals naturally divides itself into three groups of expenses—raw food materials, wages, and common needs or fixed charges. The two latter can usually be fairly estimated and will be reasonably stationary in any one year. The bulk of the

food needed, the carbohydrates which make about 60 per cent of the total food supply, are also reasonably permanent. Fats are seldom reckoned separately, being combined with other foods like bread and butter, cereal and cream, and in various kinds of meats. There is left only the protein which may vary greatly in price and in amounts consumed, according to individual needs and tastes.

Our Club figures for the past year show an average daily cost of food per capita as follows: Eggs, 10 cents; fish, 5 cents; meat, 42 cents; butter, 10 cents; milk and cream, 17 cents; groceries, 17 cents; and fruits and vegetables, 12 cents; making a total of $1.13. It would, then, be possible to offer a combined American-European meal system at $1.50 a day, which would cover the cost of wages, fixed charges and a complete menu except eggs, fish, meat, and specially expensive dishes. These could be served to order at nearly cost price, which would be from one-third to one-half the usual restaurant charges. Cream beyond an individual 4 oz. portion and extra desserts should be on the order list. Porterhouse steaks could be ordered for families at less than separate sirloin or tenderloin portions and would be far more appetizing cooked to special order. Food ten minutes from the fire to the table is often spoiled. To come promptly to meals at a fixed hour not only insures food at its best but also preserves family life. "To have perfect food one must eat in the kitchen."

Those who take meat but once a day could thus easily save $4 or $5 a week, while in families of six or eight it would make a difference of $25 to $40 a week and every requirement of health would be met. An enormous amount of waste would be eliminated if the system were widely adopted. Heavy meat eaters would naturally prefer the old American plan, but it would be only fair that they should pay a somewhat higher price if the two plans were in use at the same time, since those choosing the fairer system would not be contributing to cover the continued waste.

Table d'hôte meals with choice of courses could be served from the same simple menu at $2 a day, but it would be distinctly undesirable to have more than two plans in operation at one time from one kitchen. There would be absolutely no class distinction in serving meals at different prices, since one who avoids too much protein is following the best teachings of science, proving that his standards of living are based on higher ideals of health and efficiency.

There are many possible applications of the same system. Since the fixed price would cover expenses of usual Club standards,

those wishing more luxuries, such as extra heavy cream, three fresh napkins instead of one daily, special pots for tea and coffee, smaller tables and a waitress for less than eight, or family style with many service plates, would pay such additional sums as would fairly cover these extras, above the 50 cents average per capita, without taxing those who do not care for them.

The proposed Lake Placid plan, a combined American-European or Ampean system, offers absolute fairness with a minimum of annoyance from change and is applicable to all grades of hotels and restaurants, since wages and the fixed price may vary with local conditions as well as à la carte extras. A fair percentage could be added as a margin of profit where meals are served on a commercial basis, the Club meals being at coöperative cost.

As carbohydrate foods, the bulk of the food which nature requires, would still be on the American plan, purse-strings would act as automatic levers to control protein balance. Health would be promoted, since it is largely a surplus of meats and sweets by which the system clogs, as a furnace does with clinkers and ashes. Auto-intoxication by poisonous gases is the inevitable result, producing many diseases. The human machine is specially dependent on the cleanness and clearness with which the fires are fed by food fuel. If the standard of human efficiency is to be raised (as it can be without doubt) the natural forces of the body must be conserved that the brain may work with clearness and precision.

There is growing interest in the new science of eugenics, which deals with race improvement through heredity, but there must first be a recognized science of right living, seeking race improvement through environment. "Human vitality," says Irving Fisher, "depends on two primary conditions, heredity and hygiene, or conditions preceding birth and conditions during life." Euthenics is the term proposed for this preliminary science on which eugenics is based. Years of careful investigation are required for the latter, but there is immediate opportunity through increased scientific knowledge to create better conditions of living, which will inevitably create a better race of men in the future. Balanced meals would mark one important step in the effort to lessen disease and develop more efficient human beings. "To that nation which best adjusts its conditions to the demands of the future, the leadership of the world belongs."

SUGGESTED PRICES FOR A COMBINED MEAL SYSTEM.

Eggs: Raw or cooked, 5 cents each.

Fish: Single portions, 5–20 cents; fish cakes, 5 cents each.

Meats: Beef—Roast, 25 cents; steak, 25 cents; sirloin, 30 cents; tenderloin, 35 cents; porterhouse, 75 cents, $1, $1.50, according to size; casserole and croquette steaks, 15–25 cents extra; chipped, hashed, minced on toast, 15 cents; with eggs, 5 cents each extra; corned beef, beef stew, tongue, 20 cents. Lamb—Roast or boiled, 20 cents; hashed, minced, or stewed, 15 cents; with eggs, 5 cents each extra; chops, 15 cents each, 2 for 25 cents. Chicken—Roast or boiled, 25 cents; broiled half of a 1½-lb. chicken, 35 cents; creamed, minced or fricassee, 25 cents. Ham—Broiled, frizzled, or fried, 15 cents; eggs, 5 cents each extra. Bacon, 15 cents; eggs, 5 cents each extra. Liver and bacon, 15 cents. Sausage, 15 cents. Tripe, 15 cents.

Cream: 4-oz. individual pitcher of 25 per cent cream, 5 cents; 35 per cent, 10 cents; ½-pint pitcher, 25 per cent cream, 10 cents; 35 per cent, 20 cents.

Desserts: 1 choice free; each additional, 10 cents extra.

SAMPLE MENUS FOR ONE DAY.

Breakfast.

Blackberries Melons Pears Prunes
Oatmeal Farina
Shredded wheat Force Puffed rice Triscuit
Apetizo Corn flakes
Baked beans Tomato toast
Baked new potatoes Potatoes hashed in cream
Toast: Dry, buttered, dipped, milk
Rolls Corn muffins
Bread crumb griddle cakes
Tea Coffee Cereal coffee Cocoa Milk

TO ORDER.

Broiled lake trout	15 cents	English breakfast bacon	15 cents
Broiled lamb chops each	15 cents	Creamed chicken on toast	25 cents
One small and one large	25 cents	Creamed codfish	10 cents
Ham omelet	20 cents	Eggs to order, each	5 cents

Dinner.

Consommé vermicelli Green pea soup
Olives Spiced pear
Baked bananas
Boiled potatoes Mashed potatoes
Club garden peas Boiled rice Summer squash
Lettuce Cucumbers

Pumpkin pie
Fruit jelley with whipped cream
Caramel ice cream Cake
American and Edam cheese Wafers
Tea Coffee Milk
Spring water

TO ORDER.

Salmon baked in cream with French fried potatoes	20 cents	Lamb stew with vegetables	15 cents
Roast beef au jus	25 cents	Salted almonds	10 cents
Roast duckling, apple sauce	25 cents	Extra dessert	10 cents

Supper.

Lamb broth
Steamed samp with cream
Stuffed olives Tomato relish
Stewed kidney beans with mushrooms
Baked potatoes Delmonico potatoes
Vegetable salad
Orange ice
Toast: dry, buttered, dipped, milk
Morningside muffins Tea biscuit
Fresh raspberries Comb honey
Assorted cake
Tea Coffee Cocoa Milk Buttermilk
Club Farm cottage cheese Toasterettes

TO ORDER.

Broiled spring chicken	35 cents	Eggs to order, each	5 cents
Roast beef hash with celery	25 cents	Cheese omelet	15 cents
Deviled ham on toast	15 cents		

Cold Meats.

Beef	25 cents	Lamb	20 cents
Ham	15 cents	Tongue	20 cents

POINTS BROUGHT OUT IN THE DISCUSSION.

People of wealth now, it was stated, live more simply; there are fewer wines, fewer courses and less elaborate entertaining.

It was reported that on the Biltmore estate near Asheville, N. C., the Vanderbilts had recently reduced the number of servants from 37

to 11. Simplicity is not inconsistent with high standards. An Adirondack hotel used to advertise "carved furniture in every bedroom.' The Lake Placid Club spends lavishly on things that involve health, such as sanitary plumbing, fire protection, and the best qualtiy of foods, but not a penny on elaborate luxuries or displays.

In hotels and restaurants, waiters dislike to serve women. They do not order substantial meals or give large enough tips. A discussion of menu schedules from the dietitian's staindpoint is much needed. Simplicity and intelligence should evolve an ideal menu.

It was voted that the conference stand on record as opposed to the vulgarity of so much display and elaborateness in menus, and that the committee on resolutions be asked to formulate such a protest.

Dining Room Management.

CHARLOTTE M. WAY.

Rockford College, Ills.

The points to be considered, many of which are subject to great variation, include the following:

(1) Number of meals per day.
(2) A. Cafetaria for factory or school lunches.
B. Complete meal (served by maids):
(a) Served simply.
(b) Served in a number of courses, either individually or in family style.
(3) Length of meal hour.
(a) Wide limits of time, subject to the pleasure of the guest.
(b) All served at one time, according to schedule hours. This gives more time to maids for side duties. When needed they may share in chamber work and begin the preparations in kitchen.
(4) Furniture.
(a) Shape, capacity, and arrangement of tables in the dining rooms. Round tables (5 ft. in diameter) and square tables (4 ft. square), each seating eight persons, are the best standards for regular use. Larger and smaller tables may be needed for special conditions.
(b) Side tables—(1) small; (2) two shelves and top; (3) at least one table for each maid.
(c) Rolling tables, carrying at least two shelves or trays, for handling heavy loads before and after meals.
(d) Dish-washing machine for stone ware (or china).

(5) Organization of service.
  (a) Whether the care of the rooms, dining rooms and kitchen is under one or separate heads. If under separate heads, the work is better kept apart.
  (b) Force of workers—men, women or a mixed force. Women adapt themselves more easily to a diversity of work.
  (c) If the time in the dining room is short, waitresses may divide among themselves (either permanently or alternating) the care of the bread, butter, relishes, fruits, and salads, and perhaps the care of urns. This work should be under the supervision of one person, either the head waitress or head pantry-woman, for the avoidance of waste.
  (d) Care of table linen, side towels and aprons. The inspection, counting and preparation for the laundry, as well as the care and distribution when clean, should be under one head for the sake of the linen as well as fairness to the workers.
  (e) Control of breakage of china and glass must be gained in some way.
    (1) By personal report to the head officer.
    (2) By a fine of those breaking, consisting of a certain percentage of the cost, or by both the above means as needed.
    The general spirit of service and loyalty to the employer must be a large primary element in controlling this problem.
  (f) Each waitress should be responsible for the care of her own silver.
  (g) Workers should have their own dining room and eating elsewhere should be prohibited.
    (1) Their meals should be served from 30 to 45 minutes before the regular meal. This improves the service in both the dining room and kitchen.
    (2) When the general dining room is served family style and the help has the same menu economy may call for the maids being served afterward.

(6) Management of the dining room from the student point of view. (This is a very large subject, which I can but touch upon.)
  (a) *No food* must be taken from the dining room to private rooms except by written order.
  (b) Tray-service must be paid for by all the family.
  (c) Food not on the menu may not be served without the doctor's order, except eggs for breakfast and lunch. These should be signed for.
  (d) Food may be sold from the store-room at regular hours for the convenience of the family.
  (e) Student dinner parties.
    (1) Numbers limited only by the sizes of tables (8–18).
    (2) Menu: simple, extras being provided by the hostess, or by the kitchen at her request and practically at cost.

(f) Arrangement of table groups by an officer of the college and their rearrangement every five or six weeks is a valuable custom to cultivate general acquaintance and good comradeship and overcome the tendency to cliques.

NOTE. Relation of domestic service to the general labor problem. Definite hours of labor and times off duty is one of the most important questions in getting good help. When women have worked in stores or factories they object to the usual unorganized labor and long hours demanded in domestic service.

Points Brought Out in the Discussion.

Tables and seating capacity.—Are square or round tables best? A table 4 feet square will seat eight persons and a round table 5 feet in diameter is best for the same number. Forty-two inches diameter is as small as is comfortable for four persons. Legs should be placed far under, as in the Lake Placid Club tables. Tablecloths may be had in 1¾ yards, 2 yards and 2¼ yards square, the last being just right for a table seating eight. Cloths larger than this are clumsy and expensive. Bare, polished tables with round doilies have proved very satisfactory at the Lake Placid Club, and at least one dining room at each center is thus equipped. In large hotel dining rooms it is customary to have units to form any combination of numbers. Square or oblong tables are best against the walls and round ones in center rows, if mixed. This is now a popular custom. Eight is considered an ideal number for a congenial dinner party where conversation may be general.

The Women's Educational and Industrial Union, of Boston, allows 10 square feet to a person, including aisles and tables, but this is too crowded. Fifteen square feet is usually considered ample, but the Lake Placid Club figures 16 square feet for liberal space including side stands.

A Rochester hotel has a kitchen 20 x 48 feet in size, and a dining room 40 x 100 with no connecting pantry. Three hundred are served and nine people do the work.

Fireless cookers for large institutions.—Miss Van Rensselaer remarked that "the fireless cooker saved our lives when we had to serve 450 people with luncheon last week with very small equipment." General Sharpe[1] experimented with large fireless cookers to give

[1] Rpt. Commissary Gen. [U. S. Army], 1909, pp. 11–15.

soldiers hot meat in camp without fires, and also getting rid of stale odors. Those larger than the 78 gal. size are not practicable. Some home-made cookers, like Miss Bevier's, which uses an oven of sheet iron covered with asbestos, and with gas to start the cooking, answer every purpose.

All labor-saving food machinery must be carefully sterilized. Ptomaine poisoning is due to careless service as much as to poor food. It was suggested that we might cook with a coil of steam or electricity around the retainer, to overcome the difference between the top and bottom heat. We need physicists in colleges to study these problems of air space, heat, etc. General Sharpe reports every year and will gladly answer questions. He also has field ovens for baking bread for the army.

Regarding at what point it pays to equip with live steam and labor-saving machinery, it was stated that they are needed for over 100 but at least 200 are needed to make them pay. Small groups of from 50 to 60 are better handled with women cooks. With over 100, men cooks are considered necessary. Special education is required to use all this equipment and machinery.

Wellesley College, in all houses with 100 students, has live steam and appliances, and steam cookers are in all kitchens for over 50 students. There are two cooks in the main building, and in Stone Hall for 120 students. In 14 dormitories there are women cooks.

In the Minnesota College of Agriculture the meals average to cost 7 cents each per person. Board, room and laundry are $12 a month.

It was announced that Professor Lynde of Macdonald College has now in press a book on Household Physics. At Cornell the professor of physics is to coöperate with the Home Economics department.

Mrs. Mary H. Moran remarked that it is very expensive to handle small numbers with power equipment. The best plan is to have one kitchen for common needs, where soup stock, bread, ice cream, cake, pies, etc., are made and distributed to other centers. Through the Women's Educational and Industrial Union in Boston, some 4000 children and 2000 adults are served with luncheon from the New England Kitchen. Much mince meat is used and the electric grinder is taken apart every night by the janitor and sterilized. It is very difficult to handle.

Miss Corbett also favored one central kitchen for economy.

A Lunch Room for Working Girls, in Which Simple Instruction is Given.

KATHERINE LAGE.

Manhattan Trade School, New York City.

From the opening of the Manhattan Trade School for Girls seven years ago, the need of a simple lunch was apparent. For this purpose the basement of the school was fitted up as inexpensively as possible. At first, only cocoa, milk and soup were served, the remainder of the lunch being brought from home.

During the financial depression of 1908 a room was opened for unemployed women who were in need of a hot nourishing meal. With limited equipment it seemed almost impossible to meet this demand, but the need was so great that even with no funds available, it was decided to make the attempt.

Daily cooking having been established, it seemed a good opportunity to teach the preparation and serving of nourishing foods. That there is a great deficiency among the girls along this line may be readily seen by observing the lunches brought. These consist chiefly of food purchased from the baker and fruit from the push-cart, unattractively and carelessly wrapped, with little or no thought as to its nutritive value or the needs of the individual. Girls coming from some of the better homes, where money is freely spent for food, are often insufficiently nourished because of a lack of knowledge as to what should be purchased. This we are trying to overcome in our instruction and through the child to reach the parent, that when these girls become home keepers better served, better selected and more nutritious food may be the result.

In 1908 the first cooking class received instruction from a teacher of experience, an auxiliary of women having been formed to carry on the work. Through voluntary contribution they had secured sufficient funds to add to the limited equipment already installed, which consisted of a two-section gas range, instantaneous waterheater, refrigerator, cupboards containing inexpensive china, a menu board, tables and benches, with such cooking utensils as are found in the simplest homes, but really nothing that would be called cooking school equipment.

To many this lack of individual equipment would seem the greatest possible obstacle, but it has its advantages. Most of the girls come from homes furnished with only the barest kitchen necessities. They

learn here that it is possible to cook appetizing, nourishing food with few utensils and that "necessity is the mother of invention." Thus, two groups of girls each wanted a small double boiler. Our cupboard contained only one. The group not securing it was in despair, but with a little assistance they learned to make one from kettles of unequal size. One girl remarked that she was very fond of chocolate pudding such as we make, but she had never been able to have it at home because the double boiler was lacking. Now the problem was solved.

The girls have been enthusiastic about the lunch room from the first and seem greatly to enjoy the simple menus offered. They soon learned to distinguish between our food and that from the corner grocery. The social side, long recognized as a means of development, also appeals to them. They enjoy coming together as one great family where they can have more freedom than in the class room. The lunch room is not large enough to accommodate the whole school, so the girls have been divided, each section coming first for a week.

No article is sold for more than three cents and we try to meet the needs of the students and at the same time serve variety enough to prevent them from buying the unwholesome food from the delicatessen stores.

How well we have succeeded the receipts indicate. They have increased three-fold since the inauguration of regular cooking. Very few now bring lunch from home.

We always serve soup, cocoa, milk, one or two hot dishes, bread and butter, beef sandwiches, two kinds of cake, two or three desserts, with one cooked fruit and two varieties of fresh fruit.

A menu with the cost of each article is placed in a conspicuous place where it may be read before passing to the counter where all cold foods are arranged. The hot dishes are served by members of the cooking class with one paid helper. That the choice may be wise some one is always present to guide in the selection of foods. On the girl's way to the tables the cashier must be passed, then she may sit at any vacant place and enjoy her food and her friends. When lunch is over she brings forward soiled dishes, napkins and refuse and deposits each in receptacles conveniently placed, leaving the table as she would like to find it.

Not all of the girls can take the cooking owing to the limitations under which we are working, therefore selections are made upon the following basis: First, those who are physically deficient either from

a wrong selection of food or from insufficient supply of the proper kind; second, those girls who are home keepers either on account of the death of the mother or her inability to take the responsibility of the family; third, those who can remain long enough in the school to complete the trade work and the cooking as well.

A course of thirty lessons is given, one each day until the course is completed, thus giving them nearly as long a course as the public schools with the advantage that mistakes and acquired knowledge from the previous lesson are still fresh in memory.

Most of the food prepared is sold from the lunch counter, but each day something is cooked to be served immediately. This is very welcome to those who have come with little or no breakfast.

The girls enjoy cooking in large amounts chiefly because they feel they are doing something really useful. They also enjoy the commendation of their friends or classmates who are sure to inquire what girls made the dish which has specially pleased them.

Emphasis is also placed upon such food as they might prepare in the shop or factory where a kitchen is supplied for the use of the workers.

Members of the cooking class come to the lunch room at 12 o'clock, assist in preparing food, arrange tables, and take accurate account of the articles sold. These girls do not pay for their lunches and are not limited in their selection except as to desserts. For many this is the only hot meal they have during the day. Suggestions as to table manners are here made.

One of our difficulties has been to create a desire for wholesome foods with which they are unfamiliar. The girls are encouraged to sample such food each time it appears on the menu and soon a liking for it is acquired. For those not in the cooking class we have instituted a system of tasting to create a desire for some food which has not yet become popular. It is not strange, when they have so few pennies, that they should always choose things they have tried. In like position we, too, would hesitate to spend our all for food we did not know.

The ability to cook independently is tested when they are required to prepare food at home for exhibition. In most cases no assistance can be obtained from the mother because she has not the knowledge to impart. When it seems necessary, materials as well as utensils are furnished.

Many gratifying requests for recipes come from the parents. Many

are of foreign birth and are not accustomed to our great variety of foods. They are also much handicapped because they know neither the spoken nor written language. When the daughter has had her instruction in cooking she takes her recipe home, translates it into her mother's language and thus our instruction is passed on, making many a family happier and better.

Often the girls have trouble with recipes, the simplest language proving an enigma. In one case a recipe had been taken home and the following morning the meaning of the word 'scald' was asked. The dictionary had been consulted but the word found meant something about liquor, and this of course did not help. When questioned about the use of the word the girl said it was in a recipe I had given her. The directions were "to scald the milk."

The principles of table setting are also taught. To the unintiated this may seem a simple and easy lesson but in several cases it required repeating seven or eight times. This is not strange when we look into the family life and discover that in many homes no table is set, each member eating what he can find when he feels so inclined. In other instances pennies are put in a convenient place for purchase of food when the pangs of hunger annoy.

The final lesson is a breakfast or luncheon to which some of the teachers and auxiliary board have been invited. Each girl prepares and serves some part of the meal.

Our lessons do not always come in logical order because the demands of the lunch room must be met. I have often been asked what we do with food values. We do all that we possibly can, depending somewhat upon the class. Many in a class recently completing the work did not at the start know cinnamon, nutmeg, or soda under any name nor even the names of the simplest cooking utensils. Upon inquiry it was found that the mothers in these families were the wage earners and had little time or inclination to cook a meal after a day of strenuous work. Classes like this have been given a few more weeks of cooking to insure sufficient knowledge to be of assistance in the home. With many this is the only knowledge they obtain until they are established in homes of their own and we hope it will serve to make them better and more capable home makers.

To provide food for small cost and have it both nourishing and palatable, something of food values must be known. The inexpensive materials such as could be purchased in the average family are studied, and simple, well-balanced menus are considered. More than this we have been unable to do.

All through our work we have kept ever in mind the thought of some time being able to teach domestic service as a trade, but as yet our hopes have not been realized owing to lack of funds to promote the work.

DISCUSSION.

It was asked whether instruction in domestic arts should be insisted on in vacation schools? And can these domestic arts be taught as a trade?

There is much trouble in some schools because teachers are so often tactless. One said to a pupil: "You are too nice a girl to wait on table, you don't have to earn your lunch." This feeling spread through the school and it was almost impossible to get waitresses. Boys are used in some schools.

When Macdonald Institute opened, it was thought the chief end of a girl was to learn to cook. If visitors came and a girl was cleaning, her first impulse was to run to cover. Now there is no trouble, rich girls working side by side with the poorest. At first the girls fought against housework but now they are proud of it. Canadian high schools were started with volunteers and there is no trouble in getting waitresses or girls to wash dishes.

Nutrition Investigations in Relation to Dining-Room Management.

C. F. LANGWORTHY.

Office of Experiment Stations, United States Department of Agriculture.

The paper here summarized outlined some of the conditions which must be met if the diet of the institution, *i.e.*, the group living under more or less uniform conditions, is to be reasonable and rational as well as palatable. Economy in purchase, storage, preparation and service are desirable. Cleanliness, which is truly applied hygiene, not merely the following of tradition, is vital, and if the problem is to be rightly solved, age, sex and activity must be considered in fixing upon food supply, that is material to build repairs and run the body machine.

To do these things and have the result a pleasing dietary is no easy task, but it can be done. Here, as in other matters, knowledge and wisdom both are needed. Scientific studies of food composition, of

Summary of Dietary Studies in Public Institutions

LOCATION AND SUBJECTS OF STUDIES.	NUMBER OF PERSONS IN STUDY.
Bayview, Baltimore; regular inmates, males	136
Chronic inmates, males	82
Receiving ward inmates, males	82
Average of 3 studies	
Women inmates, per woman per day	111
Women inmates, per man per day basis	111
Average of 4 studies	
Aged Women's Home, Baltimore; per woman per day	76
Aged Men's Home, Baltimore; per man per day	48
General German Aged People's Home, Baltimore; per man per day	70
Asylum for Indigent Widows and Single Women, Philadelphia, per woman per day	113
Government Hospital for Insane; patients, males—middle to old age	
Largely chronic, orderly, quiet, few workers; average of 10 studies	952
Acute, nervous, disturbed, non-workers; average of 3 studies	94
Negroes, whole group	169
Negroes, non-workers	89
Negroes, workers	80
Sick, infirm, bedridden; average of 2 studies	166
Younger and more active class, some curable, part workers; average of 2 studies	59
Better class, on first section diet; average of 2 studies	22
Unclassified; average of 2 studies	127
Average of all patients, New York State Hospital for the Insane:	
Patients, males—Chronic, infirm; average of 8 studies	1069
Light workers and disturbed; average of 2 studies	318
Workers, average of 10 studies	1595
Restless, active, disturbed; average of 2 studies	258
Acute, recent admission; average of 2 studies	70
Acute and sick, chronic; average 2 studies	35
Almshouse, Baltimore 1852—non-workers:	
Workers	
Long Island Almshouse and Hospital, Boston	
Charlestown Almshouse and Hospital, Boston	

in the United States. (*Quantities per person per day.*)

NUTRIENTS AND ENERGY.					
In Food Eaten.		In Food Wasted.		Proportion in Food Wasted.	
Protein, Grams.	*Energy, Calories.*	*Protein, Grams.*	*Energy, Calories.*	*Protein, Per Cent*	*Energy, Per Cent.*
144	2901	4	97	3	3
93	2016	2	45	2	2
111	2274	1	11	1	—
121	2504	3	59	2	2
85	1924	6	134	7	7
106	2405	8	168	7	7
113	2414	4	84	3	3
85	2206	12	308	14	14
83	2339	9	304	11	13
74	2225	8	265	11	12
58	1882			8	8
88	2767	13	341	13	11
84	2599	22	567	21	18
98	2536	12	315	11	11
90	2402	12	306	12	11
108	2694	13	319	11	11
97	2519	34	802	26	24
104	2917	12	256	10	8
125	3398	29	753	19	18
76	2609	18	539	19	17
90	2704	16	415	15	13
72	2259	4	90	5	4
73	2255	4	94	5	4
105	2908	7	132	7	4
95	2665	6	142	6	5
65	2477	7	161	9	6
66	2432	4	94	6	4
78	1959				
85	2057				
109	3164				
71	2415				

digestibility, and of other factors are furnishing a fund of fact. Knowledge can be gained. Wisdom comes with experience. The data now at hand make it possible for the nutrition expert to do for the institution food problem what the trained expert can do for any other business organization; that is, insure better conditions, better service, and greater satisfaction for all concerned, both the managementand the persons provided for.

As an aid in institution work a score card is suggested, in which the various factors to be considered are given a theoretical rating, with which conditions as they exist may be compared as a basis for change or for making sure that a standard is kept. This score card, which was offered simply as a basis for discussion, follows:

Dietary Score Card for a Public Institution.

FACTORS.	MAXIMUM VALUE.	RATING.
	Points.	
Quality of food	25	
Adequacy of food	25	
Economy of food, *i.e.* cost as compared with income	20	
Cooking, serving and palatability	10	
Cleanliness in kitchen and dining-room	10	
Attractiveness of diet	10	
Total	100	

A large number of dietary studies in public institutions have been made in the United States, particularly in connection with the nutrition investigations of the U. S. Department of Agriculture.[1] The table given on pages 530 and 531 summarizes the results of American work of this character.

Some results of dietary studies with individuals in public institutions in foreign countries are summarized in the following table:

[1] United States Department of Agriculture, Office of Experiment Stations, Buls. 150, Dietary Studies at the Government Hospital for the Insane, Washington, D. C.; 223, Dietary Studies in Public Institutions in Philadelphia, Pa., by Emma Smedley and R. D. Milner, and Dietary Studies in Public Institutions in Baltimore, Md., by H. L. Knight, H. A. Pratt, and C F. Langworthy.

Results of Dietary Studies with Individuals in Public Institutions in Foreign Countries.

(Quantities per person per day.)

SUBJECTS OF STUDIES.		NUTRIENTS AND ENERGY IN FOOD EATEN.	
		Protein.	Energy.
		Grams.	*Calories.*
Experiments by Linbeck:			
Woman, 79 yrs. old, weight 84 lbs	first study	71	1289
	second study	71	1291
Woman 61 yrs. old, weight 81 lbs		71	1226
Experiments by Köves:			
Woman, 76 yrs. old, weight 99 lbs.	first study	77	1361
	second study	66	1361
	third study	66	1165
Woman 78 yrs. old, weight 134 lbs.	first study	41	1275
	second study	41	1575
	third study	67	1207
Experiments by Fenger:			
Woman, 61 yrs. old	first diet	80	1125
	second diet	85	1200
	third diet	78	1230
	fourth diet	84	1600

One of the objects of the dietary studies in public institutions recently reported by the Office of Experiment Stations was to secure data for suggesting dietary standards for aged people and for children.

Standards for aged persons which have been suggested by a number of investigators are given in the following table:

Suggested Dietary Standards for Aged People.

(Quantities per person per day).

SUBJECTS OF STUDIES.	NUTRIENTS AND ENERGY IN FOOD EATEN.	
	Protein.	Energy.
	Grams.	*Calories.*
Voit:		
Old man, no work	90	2116
Old man, light work	100	2689
Old woman, no work	80	1831
Old woman, light work	85	2096
Old people, hard work	100	2898
Maurel, maintenance rations:		
Men, 60 yrs., average weight, 145 lbs	82	1965
Men, 70 yrs., average weight, 139 lbs	79	1891
Men 80 yrs., average weight, 134 lbs	46	1531
Men, 90 yrs., average weight, 128 lbs	43	1446
Women, 60 yrs., average weight, 125 lbs	71	1702
Women, 70 yrs., average weight 119 lbs	67	1612
Women, 80 yrs. average weight, 114 lbs	39	1288
Women, 90 yrs., average weight, 108 lbs	37	1234
Atwater:		
Man without muscular work	90	2450
Man at sedentary work or woman with moderately active work	100	2700
Man with light to moderate muscular work	112	3050

In discussing the dietary standards suggested for aged persons and children as a result of the recent United States Department of Agriculture investigations, the dietary standard for a man in full vigor at moderate muscular work is taken as a unit. It must be remembered in all such discussions that a dietary standard is simply a guide for home and institution management and is not to be considered as an expression of absolute physiological requirement. The dietary standard suggested by the Office of Experiment Stations for a man in full vigor at moderate muscular work follows, the data being given on the basis of food purchased, food eaten, and food digested:

United States Department of Agriculture, Dietary Standard.

(For a man in full vigor at moderate muscular work).

KIND OF FOOD.	PROTEIN.	ENERGY.
	Grams.	*Calories.*
Food as purchased	115	3,800
Food eaten	100	3,500
Food digested	95	3,200

The relative amounts of food required by persons of different age and occupation as compared with a man in full vigor at moderate work, as determined on the basis of the work of the Office of Experiment Stations, are shown in the following table:

Relative values for food requirements of persons of different age and occupation as compared with a man in full vigor at moderate work.

Man, period of full vigor:	
At moderate work	100
At hard work	120
At sedentary occupation	80
Woman, period of full vigor:	
At moderate work	80
At hard work	100
At sedentary occupation	70
Man or woman:	
Old age	70-80
Extreme old age	90
Boy:	
15 to 16 years old	90
13 to 14 years old	80
12 years old	70
10 to 11 years old	60
Girl:	
15 to 16 years old	80
13 to 14 years old	70
10 to 12 years old	60
Child:	
6 to 9 years old	50
2 to 5 years old	40
Under 2 years old	30

As a part of the discussion following the paper, Dr. Langworthy pointed out that an institution may be defined as any group of persons

fed under uniform conditions, as in the army and navy, the population of almshouses, prisons, asylums, and other public institutions, and the groups in boarding houses and hotels. The well trained dietitian must know the amount of food required and the dietary standards for persons of different age and sex and with different muscular work and environment, and must also know about food composition, shrinkage in storage and preparation of food, and similar matters. Kitchens must maintain standards of cleanliness and it is a prime requisite that an institution shall provide a reasonable amount of food suited to the needs of the group fed.

Both overfeeding and underfeeding must be avoided. The energy requirements of man at work or at rest are reasonably certain, but the exact amount of protein needed is still more or less a matter of opinion, though information is accumulating rapidly. Much of the discussion about this matter is due to the fact that persons do not distinguish between physiological requirements and dietary standards, the latter being simply guides for home and institution management. Another source of confusion is the failure to distinguish between standards expressed on the basis of food purchased, food eaten, and food digested. These factors are taken into account in the dietary standards recently proposed by the Department of Agriculture, and which it is believed it is safe to follow at present. As noted in the above paper, these call for 118 grams protein and 3,800 calories of energy per man per day in the food purchased for a man in full vigor and engaged in moderately active muscular work. If considered on the basis of food eaten, the amounts are 100 grams protein and 3,500 calories of energy, and if considered on the basis of food digested, 95 grams protein and 3,200 calories of energy are called for.

As an illustration of the importance of applying knowledge to institution problems, Mrs. Abel's work in Baltimore may be mentioned. Some years ago she made a very careful study of the food problem at Bayview, the city almshouse, and as a result suggested a diet which was ample as regards protein and energy, reasonably palatable, and cheap, since it cost only seven cents per man per day. To insure palatability many expedients were resorted to, such as serving meat dishes in which the meat was browned instead of always serving soups and stews, which is a common custom in institutions where low cost is necessary. The use of cooked cereals at breakfast in place of bread made little difference in cost and was a very acceptable addition to the diet.

Investigations in public institutions show that there is great need for the use of scales and for checking weights in institution buying, or one may pay for 100 pounds and get much less. In one case it was found that a wholesale firm which on a large order for choice cuts of meat made a price three cents a pound lower than a competitor, supplied material which was twenty-five pounds short in weight. No one would contend that the majority of dealers engage in such practices, but it is always well to check up purchases at frequent intervals.

In the course of the discussion, it was pointed out that score cards similar to the dietary score card suggested would be of great value in all departments of institution work. Score cards should be posted in kitchens and in such cases should cover the problem of sanitation, including hygienic construction, and should especially emphasize keeping out all flies, which are apparently much more dangerous even than dust and visible dirt. Score cards should be made to apply to the quality of various kinds of food and to cooking. They may also be used to help the visiting dietitian as well as the institution manager. If a poor woman has five dollars a week to spend for food for her family, how much is she justified in using for certain kinds of food? Cannot the Conference help in this work? Manuals are needed as well as score cards. It has been suggested that an excellent way of teaching the use of the score card would be to have score card parties in which guests were invited to score the house where they were entertained. Miss Hunt is responsible for this idea. Miss Alline has devised score cards for use in the work which she has carried on under the New York State Board of Education in visiting institutions for trained nurses and considers them among the first necessities of her work. Such score cards would lead to better inspection systems in many lines. At least one city in the United States has adopted dairy inspection based on score cards. They could readily be applied to inspection work in bakeries and other places where food is prepared and in general to judging of the cleanliness of all kinds of work which pertains to the home.

As regards hygiene of food, too much insistence cannot be made on decent methods of handling, preparing and serving it. Mrs. Abel says that the problem of clean food is chiefly the problem of clean hands. In designing plans for public institutions basement kitchens below the level of the sidewalk or road should be avoided. It is almost impossible to prevent dust blowing into such kitchens in clouds.

The question of teaching table decorum in public schools was also considered, more especially with reference to such groups as students in college clubs and boarding houses. It was pointed out that there are in vogue in the United States two customs of decorum at table, each of which has its advocates, some persons preferring to follow English customs and others French. The English use the knife in the right hand and the fork in the left, while the French use the fork in the right hand with a piece of bread in the left. Students very generally need instruction in table usages and customs, and experience shows that it is much better to make suggestions regarding table manners before the teachers have watched the students at the table, as then the suggestions will not be regarded as individual criticisms. Table customs change. As an illustration, it was fashionable a hundred and more years ago to drink from a saucer and the use of the knife for conveying food to the mouth was not a breach of good manners, but a custom which has come down from a still older time when forks were unknown or very rare. The teacher should endeavor to instruct her pupils in what is considered good usage and in all the ordinary matters of table manners, but should also emphasize the unimportance of fads in table service and in table utensils and decoration. Here, as in cooking and serving food, the reasonable and rational should receive attention and not the useless or trivial.

Courses of Instruction in Laundry Management.

L. Ray Balderston.

Teachers College.

"The world gives its admiration not to those who do what nobody else attempts but to those who do best what multitudes do well." These words of Macaulay have been our laboratory motto this year. We felt it a good motto because we knew that as far as laundry work, from its old standpoint, was concerned, *many* did good work but *we* wanted to do the best work.

No department of an institution requires more organization and care than the laundry. Visitors ask, why put the laundry course in the school or college curriculum? What will the students ever do with it? Just where does this course come in? What will these women do when they leave here?

Our answers are numerous. Any school teaching household arts could not possibly do complete work and omit laundering, an art so essential to all members of the household. Every woman knows that a large part of many women's lives is spent at the wash tub. Why not know the easier and better way for herself, or know how to teach it for better results from her workers? Physical energy, mere human power so often expended in laundry work, is wasted to a great extent, and could be used to better advantage in saving time for other duties or pleasures. To quote Professor Ruediger, "Every profession is based on a number of pure sciences that must be mastered," and again, "Every profession requires systematic training and practice under guidance." The art or profession of laundering does not differ from other professions.

With the growth of flats or apartments, hospitals 6000 strong, and schools and colleges, the demand for proficient head-workers should increase. These institution laundries should be presided over by a trained worker, while the commercial or community laundry (for such we may call the apartment house laundry), and we cannot omit the little basement laundries under stores, should be inspected as to their sanitary conditions and their use and abuse of clothing. Trained women as inspectors should, and in time will, play a very important part, I believe, in the licensed laundry.

Every institution meets an heroic problem as to time, labor and expense in the fact that no institution can be properly conducted without an ever-ready supply of clean linen. The washing of this linen must be done as cheaply as possible, and at the same time quickly and well. The institution owes to the church, society, the community, or to the State which gives it birth, a practical and economical solution to its management problem. For some time past the trained worker has supervised buying supplies, cleaning, and repairs, while the expert dietitian has planned and watched the food purchased and prepared, has prohibited waste, and overseen all the culinary activities. This has all meant economy. Why should the laundry department be left headless or with a head who is appointed, it may be, through friendship or political favor, and who is without knowledge or, worse still, without principle? The time has come when the sad mistakes from such appointments are being appreciated and when it is becoming evident that expert knowledge or practical and scientific training are indispensable to the successful management of a laundry.

A natural consequence is the increasing demand for trained heads of laundries or qualified assistants, and resulting from this, a school where managers, superintendents and instructors are taught. Knowing the demand and foreseeing the vastness of the work, a course was opened last fall in Teachers College, Columbia University, under the department of household administration.

In the new household arts building a laundry laboratory was planned where instruction might be given in domestic or home laundering, and in institution laundering. This room is 40 x 28 ft. and by the arrangement of domestic and institutional equipment has been divided in half. The floor is of white two-inch hexagonal tile, with a sanitary curved base of tile. The pitch of the floor is such as to insure rapid and complete drainage to an outlet under the stationary tubs. A five foot wainscoting of white tile and light cream colored enamel paint form the wall, while white enamel paint finishes the ceiling, making an entirely waterproof room.

It seemed wiser to have one laboratory accommodate the two types of classes, so some of the equipment is more or less interchangeable. The twenty-four stationary porcelain tubs, placed in two rows, occupy the middle of the domestic half of the laboratory. These tubs have been set higher than the usual plumber's standard, and we find thorough satisfaction results, as the washers keep drier and there is much less back strain. I heartily believe in the higher wash tub. To have this height a tub must be chosen with gas pipe legs. Our tubs are smaller than is usual because they were to be used as laboratory tubs where a number of students work at a time, and consequently the smaller tub economized space, and again the wash of each student in practice is smaller than the home wash. Each tub, besides being piped with hot and cold water, has an "L" shaped nickel steam pipe which permits the tub being used as a boiler.

This equipment is quite possible for apartment houses or flat houses where a central laundry is used by the renters, and by small institutions where body work only is done, because the small quantity of soiled clothing does not warrant power machines. With 100 lbs. pressure of steam a tub full of clothes may be boiled in five minutes. A little care will eliminate the only disadvantage resulting from these steam pipes, and that is to allow a clear passage of steam through the pipes and thus drive out any rust that may form. Brass piping is a sure way of preventing the formation of rust, but its cost is almost prohibitive.

Ten ironing tables of the commercial type have been placed along the window side of the room, a blackboard being on the opposite wall. We have gas and electric heated irons. Electric irons weighing eight pounds and with a light attachment at the switch do work well if care is used.

While this equipment seems to be entirely for teaching the domestic laundry classes, it is so much a part of the outfit for the institutional classes that a description of the laboratory would be incomplete without it.

The institutional machinery is of the American type, and has been chosen to represent such machines as are necessary for every steam laundry plant, the size, number and variety being a matter of conditions. The washing machine is of 100 shirt capacity, with a galvanized iron outer cylinder and brass cage. The 20-inch extractor, the 75-inch return mangle, the two-section cabinet drier, the starch kettle, and the soap tank constitute the stationary equipment. A 7½ h.p. motor runs this apparatus at a cost of 5 cents an hour. This cost is high, as more work could be done and the electricity more economically used. The machinery was chosen in a small size because of the original cost, but more than all with the idea that the small equipment would teach all that a larger one could. The cabinet drier was selected over a conveyor because of the varied type of work, and again because this cabinet must answer as a drier for the domestic classes.

The time given during the last year has been three consecutive hours a week. The class averaged 12 members, composed of graduate nurses and of those training for institution management or for teaching. I believe a course in domestic laundry should precede the institutional. About 40 minutes each day was given to talks on types of laundries, types, use and care of machinery, methods of marking, removal of stains, division of labor, and similar topics.

Each lesson had some practical work in the washing, extracting and mangling of flat work. No hand-ironing was done by the institutional classes. About 200 pieces a lesson were asked for from the dormitory or gymnasium. Owing to the number of students, it was necessary to divide the class work—those washing one week, mangling the next. At the close of the lesson period the finished work was ready to go back to the sender. The students at all times were responsible for the greasing or oiling of machinery and timing water changes, and each had some practice in all lines of the work. I believe the practice was sufficient to make the student feel that she had the main

preliminary knowledge necessary to work quickly into the larger field. We know every hospital or institution has its own problems of the division of the day's work, division of the help's work, and cost, but these, I believe, cannot be laid down by any rules other than to present different outlines of work from different institutions as a working basis.

As in any teaching or hospital training work, the students visited large commercial laundries to see various and improved types of machinery. These outside visits have great advantages in showing ideas of sanitation, in arrangement of rooms, type of helpers, and differences in the consideration given to the helpers.

In this connection I must speak of the welfare work done in the Pilgrim Laundry in Brooklyn. Miss Jane Seymour Klink is employed as the welfare worker in this commercial laundry and her work is largely from the social and ethical side. While knowing the proportions of starches and blues and the work they should do if rightly used, it is her special function to know the girls in all departments. She it is who encourages saving by the Penny Provident Fund, and who acts as cashier. She it is who attends to aches and pains, each time making a record of medicine given and the amount; she it is who knows where her girls go on a vacation or why they are away from work. A small circulating library in her little office is for all. A hot substantial addition to the day's luncheon is prepared under her guidance at a cost of from three to six cents, the workers bringing from home the bread and butter to lessen the cost.

The lot system is employed. Cards are sent out to all departments saying it is a 10 or 11 lot day, and each lot of clothing is put through its various stages by the time card. If the lot is finished ahead of time, the time between lots may be used as rest or relaxation time. In this laundry the worker is never too busy to measure the water in the gauge, never too busy to set his time clock, telling him accurately when to make the changes, never too busy to measure soaps or blues. A paper, *Pilgrim's Progress*, is published monthly. Some of the workers in the laundry act as editorial staff, and the paper reports the general activity as any society paper might tell of the life of its subscribers. As a part of the club idea, every employee wears a pin, from which a small silver numeral hangs which tells the number of years of service.

I have spoken at length of this commercial laundry in order that I might show distinctly the kind of work that may be done in business establishments, but is not often done.

To return to the work at Teachers College, the students are asked, besides the visiting , to work along research lines, and are given special subjects.

So much for what we have done, and now a few of our desires for the future. Soon one division will be too large; when we have more it will be possible to do shift work. This will represent the day's work better, in that the morning class can start certain large pieces of work and the afternoon class can finish, making it possible to do more work, and longer and more detailed problems. We can work out the problem of the best washing machine. We can prove if the wash wheel is all the sterilizer needed. We anticipate the time when the course extends during the whole year and the students of the second term will act as managers and supervise or direct the work of the juniors.

With either of these two advances it will be possible to do test work, such as analyzing blues, soaps and waters to the point of feeling familiar with the question, and at any time being ready to detect inferior or adulterated goods. Again, it will be possible to experiment with the effect of bleaches. One marked set of clothes can be washed with bleach each time, and another, by way of comparison, having no bleach. The goods must be purchased at the same time, be of the same quality, and be kept until worn beyond use that the comparative effects may be studied.

Should it not be possible for the students to go to a special department and study, I believe the nurse, for example, could take one month in the laundry, as she does in the diet kitchen, and each week work out some special problem The institutional worker in training might apprentice in some institutional laundry where good work is done. We are just beginning on this new career, this new type of work in the laundry world, and while we may have many theories that may not succeed, they cannot help but lead to the way for better work, done in a sanitary, scientific, practical and econom cal manner.

What should we ask for? A person at the head of every laundry department in every institution who has made the matter a study, whose word is taken as authority, whose scientific research can be proved, whose interest is a live one for the good of humanity *in* the laundry by providing healthful, well ventilated work rooms, wash rooms as well as ironing rooms, far from dark, damp and poorly ventilated cellars. We would also ask for better pay, so that the piece worker no longer need crouch over his iron and work as if hounded and probed by the prongs of the evil one.

We would also ask for an interest for humanity *outside* the laundry, shown by placing at the head a person with a knowledge of popular methods of washing, proper proportions of soap and water for clean clothes, the best kinds of soaps, and a knowledge whether they are loaded with surplus alkali or weighted with rosin. We would ask for a person who knows the best blues and whether they are made of iron compounds, which break up in the presence of alkalies, depositing the iron spots so often laid to the rusty nail or boiler; or whether the blue is made soluble by acids, or weighted with sand, which can never make any clothes blue. We would ask for a person who knows the use and abuse of bleaches, their necessity or their uselessness; who knows the various fabrics, their structure, their dye, and how they may be cleaned to the best advantage and so save color and texture.

We would ask for a person who knows enough of chemicals to make them of the most help in setting colors and in removing stains and still do little harm to the fabrics. We would ask in fine for a person whose scientific principles will go hand in hand with practical knowledge and personal exertion.

Equipment for the Small Institutional Laundry.

CLARA D. NOYES.

St. Luke's Hospital, New Bedford, Mass.

Location.—When building an institution laundry choose its location with relation to light, sunshine and a free circulation of air; preferably a separate building if there is sufficient space. The top floor of a building is the next most desirable location. A basement laundry is very undesirable; examples of such can be studied in hotels and many commercial laundries.

Construction.—The architectural lines of the main buildings should be maintained when building a laundry. It should be harmonious architecturally and a pleasing feature of the institution. The main points to consider in construction are first durability, second simplicity, and third convenience.

Durability.—Only those materials should be chosen which will prove durable and lasting. The walls should be of a hard, impervious finish, white or pale cream in color. Hard plaster, although providing an impervious finish, chips, cracks and breaks, and requires frequent

painting. The glazed brick makes a good partition and outside wall and furnishes all the features desired. It is more expensive to put in, but cheaper in the end, does not chip, crack or break and presents a smooth, impervious finish. Tiled walls are also very beautiful but are not so serviceable as the glazed brick. Floors should be of granolithic or tiling, as these are easily kept clean, are non-absorbent, and are far more sightly than other floorings.

The ceiling of metal, painted in white or cream enamel, is durable and clean. Sheathed partitions and walls are dangerous and unhygienic, and unless painted in white enamel make the laundry dark.

Simplicity in arrangement and construction are the next points to consider. Avoid closets and dark corners, broad window ledges and panelled doors. Endeavor to reduce the opportunities for the collection of dust to a minimum, thus avoiding extraordinary outlay of labor in keeping the laundry clean. Simplicity in construction, arrangement, and equipment naturally implies less work and fewer workers..

Convenience.—In arranging the floor plan, great attention should be paid to the question of convenience. The soiled linen should pass in regular order from the receiving and sorting room to the wash room, the extractor, the shaker, and the dryer, in turn.

The ironing, mangling and body ironers should be arranged with the greatest care to save steps. The ironing boards should be sufficiently near the body ironers to be reached easily. The irons, heated in whichever way is most expedient, should not require a single step out of the way. If gas-heated, provide each ironer with her own gas stove at the end of the ironing board. It is a great waste of time and strength to require ironers to walk to the next room every time they require a hot flat-iron.

From the ironing room the linen should next pass on to the sorting room for clean goods. The more thought displayed in the question of a convenient arrangement of ground plan, machinery and general equipment, the greater saving in the end.

After the laundry has been located and built, the question of equipment must be studied with regard to the peculiar needs of each institution. The number and size of the pieces of machinery depends entirely upon the size of the institution and the daily average number to be kept provided with clean linen. No unnecessary pieces of machinery should ever be introduced, and every piece installed should be in constant use and give good returns, *e.g.*, it would be extremely extrava-

gant to put in collar and cuff machinery or shirt ironers if there are only a few men to use such pieces of linen.

It is wise to select the machinery from a dealer close at hand. In case of repairs or breakdowns it is much less expensive than to be obliged to send off a long distance for parts of a machine and less time is wasted in waiting.

The only safe way is to begin by making a careful study of other laundries, both institutional and commercial. A great deal can be learned from the latter. As the commercial laundry is equipped to make money, great attention is paid to the choice and selection of machinery, and only that which will give the best returns in well finished quick work at the least outlay of money and force to operate is ever installed.

Arrangement.—The position of the various pieces is important. They should be placed at a sufficient distance from the walls to allow for passing easily back of them. This will permit cleaning, and also keep the walls cleaner. It applies to set tubs as well as other equipment. The washers, tumbler or shaker, and soap tank should be placed in line, the extractor in front of the washers, and the set tubs near the washers. As the dryer will be needed after the tumbler, it is well to have it quite near. If an engine or motor is used it is just as well to have it in this room unless it is placed in the engine room. The starch kettle should be near the set tubs, although a separate room for starching is sometimes recommended as a matter of cleanliness. A neat wall-closet near the engine will hold all the supplies necessary for the engineer's use. Another will be needed for the utensils used in blue and starch-making, such as measuring cups, glasses, strainers and straining cloths, pails and dippers. The ironing room should contain all the ironing machinery, mangles, body irons, ironing boards, clothes hangers and horses, with a large substantially made table near the mangle.

The sorting room should contain a large table or counter for sorting and specially planned compartments for nurses,' inmates,' doctors' and helpers' clothing. These must be sufficiently large and plainly marked with a name plate into which a card can be slipped. This is perhaps the neatest method in places where inmates are continually changing.

The receiving room, or room for soiled clothes, should contain suitable receptacles for the various kinds of soiled linen as they are brought in. Large, square hardwood, zinc or metal-lined boxes

afford the neatest method. If these are on wheels they can be transported from place to place.

There should always be a suitable dressing-room with toilet accommodations. This should be fitted with a hanging strip and hooks. A roomy closet for brooms, brushes, and stepladders, also one for laundry supplies, such as soap, starch, soda, or better still, bins of hard wood with hinged covers and with a capacity of one or more barrels, make a much tidier way of keeping supplies than having to store three or four barrels, as the latter take up considerable room and are always untidy. The bins can be placed along the wall in the ironing or wash room and fitted with locks. The principal objection to closets is the difficulty in keeping them clean.

It is not uncommon to see the entire laundry equipment in one large room without any partitions. If such a room is used, the machinery can be quite as conveniently arranged but does not look quite so well. Occasionally two or more stories are used. In such case a lift is a necessity. It matters not so much as to the floor plan, the important point is to arrange the machinery conveniently so as to save time and steps.

List of machinery.—For an institution of two hundred beds approximately the following equipment is needed:

2 washers (wooded) 100 shirt capacity.
1 tumbler or shaker.
1 26 inch extractor.
2 sectional cabinet dryers.
1 mangle, (100 inch,) with return apron.
1 body ironer.
4 ironing boards with individual gas stoves or electric irons.
1 engine, 12 horse power, horizontal.
1 motor.
1 starch kettle, steam jacketed.
1 starch table, zinc top.
1 copper soap tank, 40 gal.
6 set tubs.
1 clock.
1 truck for wet goods.
4 ten-bushel baskets fitted with trucks.
1 large substantial table for sorting goods from the mangle.
Several hard-wood clothes horses with casters for sorting goods ready for the mangle.
Several horses for drying goods ironed by hand.
4 hardwood bins for storing supplies.
2 wall closets for engineer's supplies and blueing.

The approximate cost for the above is about $2,000. A floor space of 40 x 60 feet will be required.

This estimate will serve as a basis upon which to figure. The equipment can be varied to suit the needs of the institution, and increase as the institution demands.

The 100-inch return apron mangle is a great labor saver. The return apron requires only two workers, passing a sheet through single or open, and bringing it back perfectly dry. It thus does away with the necessity for airing, thereby saving time and steps, as a sheet can be used at once on a bed. The entire surface of the heated cylinder is utilized, therefore there is no waste of heat or ironing surface. Time is also saved as the workers stand to feed and receive in the same place. The saving is particularly large on small goods, as three workers can kept be busy at the mangle.

In regard to body ironers, it is sometimes difficult to get help to use them or to find capable workers. Some small institution laundries do not install them, but use very generally the Toof Jumbo iron for large surfaces. Personally, the writer believes in the body ironer. If properly used if gives excellent results as to finish. It is very easily learned and with a little patience and encouragement a worker will become quite skillful in a few days.

A great deal could be said about the use and care of these various pieces of machinery, and a few words seem essential. Great cleanliness is very important; the machinery must be kept clean and free from dust and superfluous grease and oil. The mangle and ironing sheets must be clean and free from dust, lint or starch. All machinery should be covered with special sheets when not in use. It must be kept in perfect order and repair and carefully oiled. Valves and joints must be kept tight, otherwise steam will be lost. Water faucets must be tight and the most economical method of heating water devised, otherwise time, coal, steam and water will be wasted.

Great care should be exercised in arranging a careful system as to washing, extracting, etc., otherwise quantities of linen may be ruined.

Good "help" and good wages are economical in the end. Ignorant employees are not only unsatisfactory but a great extravagance.

Careful rules and regulations should be introduced and lived up to. All avenues of waste should be carefully watched and controlled.

The more time and thought spent in studying the laundry question in our institutions, the greater the satisfaction and the keener the pleasure derived from turning out carefully cleaned, well finished linen at the least expense and outlay of time, strength and money.

The Laundry as a Commercial Enterprise.

JANE SEYMOUR KLINK.

Welfare Manager, Pilgrim Steam Laundry Company, Brooklyn, N. Y.

To run any business requires business training and experience—a practical knowledge of practical affairs, a comprehension of the credit system, a capacity for organization, an administrative ability in directing affairs and managing men, an insight into detail, and at the same time a breadth of vision large enough to take in the whole. If one has any talent it needs to be cultivated. Perhaps the talent for laundry work needs more cultivation than others. Nevertheless, if a woman wished to engage in the business of running a laundry, the important question would be "Can I make it pay?"

Every one wants clean clothes and the laundry work is being taken more and more from the home. The initial cost of the plant is comparatively small, the labor being the greatest item to be considered. It might seem that women would be particularly fitted to set and maintain a standard of good laundering because of the long experience which they as a class have had in that occupation.

If a woman intends to go into the laundry business, has she, first of all, the ability to manage people, has she mastered the secret of making men and women not only work, but want to work? Many of the operations in laundering are classed among the unskilled trades, and in the fringe of workers who go from one of these unskilled occupations to another there is not always a marked tendency to work; in fact, if they are eager for a position, they seldom display the same eagerness for work. Has the woman the patience to train them into skilled workers? Has she the masterfulness necessary to overcome petty jealousies, reprove dawdling, weed out those who "soldier," in short, to organize her help into a practical working force where each one does his or her part with ever-increasing efficiency?

Next, has the would-be manager of a laundry clearly in mind a standard of excellence in the work? It is not enough to wash clothes, iron them, and send them home safe. There are many people in the laundry business who are doing that. The clothes must be washed a little better than any one else's or there must be an attempt to excel in some other particular thing. For instance, there was a young banker who never had the neck-bands of his shirts ironed to suit him. Finally, becoming exasperated, he decided that he would start

a laundry of his own and see if he could not have those neck-bands right. That was, perhaps, five years ago. He is still in the banking business, but three large, flourishing steam laundries bear witness to the fact that his standard in neckbands and everything else is high.

To the woman contemplating a laundry business, then, I say, "If you can find some one thing that you think can be improved upon, and you know you can improve it, try that." For instance, if a laundry was started to do fine work in the best posssible manner, making a specialty of washing infants' clothes, old ladies' caps, fine lace, delicate underwear, in addition to the regular work, doing all these things well and reasonably, there would be a place for such a laundry in any large city.

In the laundry business there are no "tricks in the trade." It is clean, straightforward work, and for that very reason should be a paying business for a straightforward woman, provided she has the business capacity. But it means work. There are a thousand matters to claim her attention. A knowledge of practical chemistry is of the greatest value. The chemistry of soaps, colors, bleaches, materials, bluings, must be worked out daily and hourly. Absolute cleanliness is a positive necessity, and no pure food law demands more rigorous enforcement than does the law that soap, starch and water must be of the *highest* standard—never causing speck or stain.

One department of a well-regulated laundry, which is as much a part of the business as the washing or the starch department, is the welfare deportment. This should be on an economic basis, with the distinct understanding that what is of benefit to the employee must be of benefit to the employer, because both are engaged in the common furtherance of a common work.

The welfare manager may not know the kind of starch used, or its proportions, but she must know what kind of work the employee is doing with the starch. She knows whether the employee is falling below her usual standard, and if so, the seeks to discover and remove the cause of her failure. On the other hand, she watches to see whether that same employee, not knowing her strength, overtaxes herself when she should not do so. She may not be able to turn out a perfectly ironed shirt, but if the shirt be not perfectly ironed, it is her business first, to know why it is not done properly, and then to see what can be done to improve and encourage the employee who has slighted her task. It may be that hasty breakfasts or hurried lunches have caused indigestion, therefore the welfare manager takes pains

to have that employee eat a good luncheon, which is provided in the plant at a nominal cost.

It is not that good work is demanded, as it were, but rather that each employee is led to feel that she cannot in honesty give anything else, whether for her own sake, for her companions' sake, or for the firm's sake, because they are all parts of the same thing. For instance, if she stays away others have to do her work, so that a regard for them should bring her in even if her inclination be otherwise. Now "solum nobis" is the the motto of the Pilgrim plant, and each one tries in greater or less degree to live up to it. Increase of wages comes whenever, in the opinion of the managing force, it is deserved, and faithful, loyal service brings its own reward in the matter of dollars and cents as well as in each worker's satisfaction in doing efficient, effective work. The idea is to educate each employee up to the highest level of efficiency, because the better work of each makes the more perfect work of all, the little saved by each makes the much saved by all, the profit to each gives the greatest gain to all.

Suggested Linen Standards for Hospitals.

LOUISE POWELL.

Superintendent of Training School for Nurses, University of Minnesota Hospital.

[Miss Powell's careful paper, while based entirely on research work in connection with hospitals, contains several passages which should be of interest to anyone in charge of an institution household. Since it is not feasible to print the whole paper such selections have been made as seem to be of the greatest general value.—Ed.]

There is probably no department in a hospital, whether large or small, concerning the administration of which there is greater variety of opinion and less uniformity of system, than the linen room.

Very few hospitals, I find, are prepared to furnish estimates of the standards in use in their wards, very many have no standards. There is a striking difference in the amounts considered necessary and adequate by the various superintendents.

In arriving at a standard for tea towels and glass towels, a plan was adopted in our hospital which has been tried and found satis-

factory. To each department using these towels, seven are given. These the maid must wash out every day, and at the end of the week they are sent to the laundry, a fresh set of seven being given to the the maid. In this way fourteen towels will supply the maid, they can be readily accounted for, and she should always have a supply of clean towels.

If nurses could be made to realize, what is really a fact, that the initial cost of providing only *one* extra sheet and *one* extra pillow-case for each bed in a hospital, let us say, of three hundred and fifty beds, would be three hundred dollars, and that the laundering of this extra supply would take the time of two people for nine hours a week, costing in a year about ninety-five dollars, would they not listen more patiently when the person in charge asked that they limit themselves to a stated number of these articles?

I am strongly of the opinion that if every probationer were allowed to work several hours a week in the laundry, with the definite purpose in view of teaching her and not to save the expense of an extra person to the hospital, she would be a more careful nurse in the wards. She should sort the soiled clothes, or supervise their sorting, in order to see the large number of slightly tumbled but clean articles that come to the laundry, and also to see the ragged, torn clothes that nurses send down, and the large number of safety pins, which may mean destruction to other peoples' clothes and quite frequently injury to the hands of the laundry employees. She should sort the clean linen to see how important is clear marking and should note the time consumed in washing, mangling, and folding linen. In addition to this she should be taught the cost of each article.

Buying.—The superintendent will find it interesting and well worth while to note the differences in price of the same article in different localities, in different quantities, and at retail and wholesale prices. Some people advocate buying direct from the factory; others deem it wiser to buy through a merchant. Many factories will not deal with the consumer, though this varies with the part of the country in which one is located. One great advantage in buying from a retail merchant is that you can buy practically all your supply from one firm, thus saving many letters and many express charges; and by getting large quantities, you will probably get a better price. Merchants as a rule will give good price to hospitals, some having a special salesman whose whole time is employed in taking hospital orders. In small places, where the support of the hospital is in part dependent

on the good will and gifts of the people of the town, it would probably be good policy to buy supplies through the home merchants, and thus enlist their interest for the hospital.

The prices quoted in the lists given below are of course approximate, and would vary much in different localities, with the quantities, and always with the market. It is an open question as to whether it is cheaper to buy ready-made, or to have articles made in the hospital.

Repair.—Some small hospitals depend on convalescent patients to do the mending of linen. This is not always satisfactory. Very often the work is carelessly done, and many times one cannot wait for sewing to be done in that way. A small hospital may find that to have a seamstress come for a few days at a time is all it needs, or can afford. Some large hospitals have one woman who spends all her time mending; others have the whole force of seamstresses mend linen for two or three days, after exchange days, and spend the rest of their time making various articles.

The system of exchange of worn linen as now in vogue in most of the hospitals investigated seems a waste of everybody's time. If the sewing room where repairing is done is connected with the laundry, there seems to be no reason why torn linen should go to the wards. It would be perfectly practicable, and it is done in some hospitals, to have torn articles as they come from the mangles thrown into a basket, thus saving one folding. These articles can be inspected and either mended or discarded by the person in charge of the linen, who, being responsible for it, is much more careful about what is discarded than the nurses would be. There is undoubtedly much waste caused by the tearing up in the wards of linen slightly torn, which could have been repaired and if not fit for use in the wards have been used in some other part of the institution. This method of repair would save the time and strength that is consumed daily in the wards in getting out a piece of linen, unfolding it, possibly far from the linen shelf, finding it torn, and having to replace it with another, which many times is just as bad.

Store-rooms.—There must be in every hospital a certain reserve supply of linen. In the room where this supply is kept, there should be a record of all linen that has been purchased—the date, quantity, quality, samples if necessary, cost, and the name of the place where the purchase was made. There should also be a record of all articles given out, whether new or in exchange, and to what part of the hospital. It would be helpful if a record could be kept of the exact

measurements of all articles made in the hospitals, as this would insure uniformity of size throughout the institution.

Distribution.—There are two methods of distribution of linen in use in hospitals to-day, the ward linen-room and the central distributing linen-room. In the majority of the hospitals investigated the ward linen-room method is still in use. There the linen for each ward comes from the laundry and is there re-folded and put away. In some hospitals there is placed in each ward linen-room a correct list of the articles of linen that have been allowed to that ward—its standard, in fact. This list tallies with a list which is in the inventory book in the office of the superintendent of nurses. Systematic reference to this list will very quickly show when articles are missing, and it is found that the linen standard is more easily kept up with than if the list were not there.

Much time and strength could be saved in the wards if a little attention were given to training the people in the laundry to fold the linen properly. Would not a systematic placing of the articles on the shelves, having articles of one size in one place, and that place plainly labelled, also save time?

The ward linen-room method of distribution undoubtedly encourages extravagance in the use of linen in our wards. When there is a supply of linen at hand of which no account must be given, there is a great temptation to use it freely.

The central distributing linen-room is beginning to attract the attention of our superintendents. By this I mean one linen-room in which all the linen sent from the laundry is kept, and from there is distributed daily to the different departments, except, perhaps, to the operating department.

There are two ways in which this plan might be followed. When the method is first being inaugurated, each ward could be given a full supply for two days, it then being required that a soiled piece should be returned for each clean piece given out daily.

Another way would be to have the head nurse each day make a requisition for the amount of linen she will need for twenty-four hours. Men and trucks would be needed to do this distributing in a large hospital, but the same men who now deliver from the laundry to the wards might deliver from the linen-room instead. In this way may be prevented, what will oftentimes occur, an accumulation of linen in wards where the service is fluctuating, and utter emptiness in those that have a constant, heavy service. It means a more equal

distribution, and for that reason, a smaller supply. By this system a decided saving of time and ink in marking could be effected. If linen is distributed from one place each day to the wards, it would be only necessary to mark the linen with the name of the hospital and the date.

The supply of linen must be somewhat influenced by the length of time the linen remains in the laundry. Obviously, if the linen is returned every day, the supply may be smaller than when it is returned only twice or three times a week. The wear and tear on linen that is being so constantly laundered, however, must be considered. Some people feel that a larger supply will not insure the less frequent laundering of articles, for in a busy hospital there is little time to arrange for putting to-day's linen at the bottom of the pile. If there is a large supply, it will probably all be used.

A record of the number of articles lost in the laundry would be interesting. This is kept in some hospitals, the number sent out and the number returned being recorded. At the end of the year it is quite startling to see how much linen disappears, apparently in this way. I say apparently, because it must be remembered that many different people count the linen, and absolute accuracy cannot be guaranteed.

The following lists give estimates of the amount and cost of linen and other equipment required for a ward bed, and of the requirements in the nurses' and convalescents' homes:

Cost and Maintenance of One Ward Bed.

Institution spring bedstead	$ 7.00
1 30 lb. hair mattress	12.00
1 3 lb. feather pillow	1.80
1 2½ lb. hair pillow	1.00
1 mattress protector	1.02
2 spreads, dimity, @ $1.35	2.70
3 blankets @ $3.50 per pair	5.25
6 sheets, 108″ x 72″ @ 85 cents each	5.10
6 sheets (draw) 54″ x 90″ @ 60 cents each	3.60
6 pillow cases 45″ x 35″ @ 18 cents each	1.08
4 towels @ 17 cents each	.68
2 towels, bath, @ 25 cents each	.50
4 gowns @ 58 cents each	2.32
Total	$44.05

Nurse's Home, Linen List.

ARTICLES.	NUMBER REQUIRED.		SIZE.	COST.
	Nurses.	Help.		
Articles per person				
Blankets	2 double	2 double	72" x 84"	$3.50–$5.00 per pair
Bureau covers	2	—	—	
Mattress covers	1	1	72" x 36"	1.02½–1.22
Pillow cases	4	4	45" x 36"	.18 up
Sheets	4	4	99" x 72"	.80 up
Spreads	2	1x	84"x"	.75 up
Towels, face	6	4	—	.17 up
Towels, bath	2	—	—	.25 up
Articles per 100 persons				
Covers, serving table	25			
Cloths, dust	4 per maid			
Cloths, floor	4 per maid			
Table cloths	60	10		
Table napkins	400			
Towels, dish	14 per maid			
Towels, glass	14 per maid			
Towels, kitchen	14 per maid			
Towels, lavatory	14 per lav.			
Towels, roller	24			

Linen List, Convalescents' Home.

ARTICLES.	NUMBER REQUIRED FOR 30 BEDS.	ARTICLES.	NUMBER REQUIRED FOR 30 BEDS.
Blankets (single)	90	Towels, bath	90
Doilies	150	Towels, face	150
Mattress covers	30	Towels, glass	10
Pillow cases	120	Towels, roller	25
Sheets	180	Towels, tea	40
Spreads	60	Wash cloths	90
Table napkins	150		

DISCUSSION ON LAUNDRIES.

Location.—Basement laundries are usually objectionable, especially in cities, because of lack of air and light. They are less so in the country if the windows are high and well above ground. If there are living and sleeping rooms above there may be unpleasant odors, vibration from machinery, and inflammable conditions. Massachusetts requires a certain number of cubic feet of air per person for health conditions. One basement laundry has been instanced where artificial ventilation gave air that was washed and cooled. No windows were open, yet the air was pure and cool all the time.

There are also objections to laundries and kitchens on top floors. While this does away with back door conditions, stealing, and loss of time, and the supervision is usually better, it is expensive in operation. Machinery can be placed on piers or pads as in laboratories but this also is expensive.

One hotel in Rochester has moved its laundry from basement to roof, however, and would on no account go back to the basement.

In considering locations, we must separate country and city conditions. A site for a building 30 x 40 ft. in Wall Street would cost $600,000 and mean $4000 a day in interest. Cities must use basements and applied science must make them livable. The responsibility is to the ultimate consumer.

Wellesley College Laundry.—When Wellesley College had to face the necessity for a new laundry, with no funds, a number of the faculty and trustees formed a stock company and built a model laundry costing about $30,000. As a business proposition the Waban Laundry Association pays. On account of steam, noise, vibration, etc., it was thought more desirable to have it a one story building and it is practically a basement though the windows are high and run to the ceiling. It has a sunny exposure, a south-east and south-west receiving room, so arranged that clean clothes do not come in contact with soiled clothes, and there is no passing of employees through rooms where they have no business. It does the work for over 1000 students, besides faculty and help, and is equipped with improved machinery throughout.

The college president is a stockholder, as are also the vice president and the Sunshine laundry heads. Miss Davis, the director of the residence halls, is president, and takes an active interest; she keeps in touch with all the work, sometimes taking her place at the mangle

in working out experiments and time costs. Prices are lower than in usual city laundries, yet it pays.

There are sixteen halls of residence. Table clothes are changed three times a week and the students have three napkins a week. The laundry manager is paid a professor's salary, and the whole enterprise is on a dignified basis.

The laundry business is fascinating, with its piles of evenly folded, beautifully polished clean linen. It is a field for well trained, educated women. Two Girton girls manage the best laundry in Dublin, and it is no new thing in England to give instruction in laundry work.

The modern commercial laundry injures linen seriously. There is no real need of this with right conditions such as prevail in the Sunshine Laundry but prices are very high there and above the reach of most families. The greatest problem is so to reduce the cost that public laundries may be of use to the average family having no domestic service in the home.

The New England Kitchen averages 2000 pieces of flat wash a day and pays $400 a month for laundry work. Taking the first cost of the linen plus the cost of keeping it clean, the wear and tear, investment, interest, etc., it is still cheaper to send to a commercial laundry and let it wear out than to do it by hand. On the other hand, it would cost Wellesley College $10,000 a year to put out its flat work.

Commercial laundries usually charge by the hundred for flat work, lumping large and small pieces together. Others ask from 3 to 4 cents apiece for long table cloths, 1½ cents for towels, and 30 cents per 100 for 21-inch napkins. The average rate per 100 is $1.50.

A Chicago restaurant manager says that even if he has to replace his linen twice as often he will still be better off than to run his own laundry.

To the question, Why not make a laundry like that at Wellesley a laboratory for training others, as in nurse's training schools? Miss Davis answered that they could take a few students as workers, side by side with other workers, but that with careful work and fifty employees to consider, they could not for a moment think of taking any number or a whole class, as they would be asking all kinds of questions all the time.

There is much literature on laundry subjects in some German periodicals, especially studies of soaps and the wear and tear of linen. There is a laundry journal published in Cincinnati, *The Starchroom.*

Note on Paper on Organization of Service in Institutional Households.

The paper presented by Miss Alice Patterson, of Mt. Holyoke College, we are unable to publish at this time owing to the fact that it is still incomplete. It embodies some results of several weeks of study made by a student in the Department of Household Administration, Teachers College, New York City.

The study was undertaken with the view of determining the amount of time required by an expert worker to perform certain tasks in the daily work of the household, with particular reference, of course, to institutions. That division of the household which comprises bedrooms, bathrooms, halls and stairways was selected, the student spending some hours daily for a period of several weeks in observing and recording accurately the exact time spent by employees in the performance of different parts of their work. An endeavor was made to ascertain, for instance (a) the actual time taken to make a bed; (b) the actual time required to properly clean a room; and (c) how many rooms can be cared for in a given number of hours.

Further aspects of the study included (a) a consideration of the character and amount of furniture in the room and its position in relation to floor space; (b) the habits of the occupant of the room; and (c) the quality and character of the work done by the employee and the general standards of such work in the institution. Five college and school dormitories, widely varying in type, were selected, and through the courtesy of the heads of these dormitories, an opportunity for careful study of the problem was accorded to the investigator.

A field of extremely interesting and profitable study was discovered. Ideas as to the amount of work which could be accomplished within a given time varied greatly in the different institutions. The number of rooms assigned to each employee ranged from fifteen to thirty, or even more, The time allotment for certain grades of work and standards of work varied so greatly as to make quite clear, even from this brief and incomplete study, the necessity for prolonged and scientific study of the situation.

Of course many factors will have to be considered—the training of the employee, her skill and intelligence; the character of furnishings and decoration, whether simple or elaborate, and the consequent amount of labor required; the way in which the work is organized and directed and the amount of supervision and inspection given—all of these factors have a direct bearing upon the situation and will need to be carefully studied.

This partial study was also made of but one division of the household work, and could and should be extended to all other departments, such as kitchens, dining-rooms, laundries, and so on. Until some such careful, systematic study extending over a considerable period is made, the question of standardizing household labor as it is standardized in the manufacturing and industrial world cannot progress rapidly. We regret that this study of one of the divisions of the household is not yet sufficiently complete for publication, but trust to be able to present it in a later number.

ARCHITECTURE IN RELATION TO ADMINISTRATION.

Architecture in its Relation to Institution Administration.

HENRY WILHELM WILKINSON.

Architect, New York City.

I grew up in a great house in the country which was built by my father and was the apple of his eye. It seemed to all of us children a perfect house. The rooms were large and well proportioned and it was beautifully finished. It was cool in summer and warm in an arctic climate in winter—a perfect house. I remember with what a shock of surprise the first warning came to me that I must not admire it *unreservedly*. I recall when my mother first said, "Well, I never liked this house." It seemed to me sacrilegious, and it was only as I became older that I realized why my mother never liked it, that it had grave faults. All the stairs, though wide and easy, were dark; the kitchen was too large, the refrigerator window had been blocked by the billiard room addition, and had been made a side door to the billiard room, so that the refrigerator was always in the dark. I remember, too, that what was death to the refrigerator was life to the billiard room. From the point of view of every one but the housekeeper it was perfect, but she found that it was difficult to keep house in.

The old house burned in the summer of 1890 and a new house, in which the errors of the old were corrected, was built when I was a boy architect. The pendulum swung the other way: The stairs were ablaze with natural and artificial light; the refrigerator had a window all to itself. In the old house there were twelve bed rooms and only two bath rooms, for plumbing pipes were considered dangerous. The question when we built the new house was, "How *many* bath rooms should there be?" not "how *few*?"

The problems which are to be studied in buildings for institutions are the same that we have in our houses. In the kinds of buildings of which I myself have made a special study, and of which there are five classes—club houses, apartments, hospitals, schools, and dormi-

tories—we find domestic questions which must be worked out on a larger or more complicated scale. The house is the unit always. I might say that the house plan is the seed from which all kinds of different plans spring. In the club house we have to solve the house problem in a more public manner. In the apartment we have a congeries of houses fitted in together with a community of interests, and coöperation is the word for successful planning. In the hospital we have a specialized house. There is such a close connection between the private house and the hospital that I once designed a country house with an isolation room for contagious diseases and an operating room if by chance one of the children should have appendicitis. The usual ratio between the dining room and the kitchen is different. There are fewer living rooms and many more guest rooms in the hospital. In fact the whole idea of the hospital is still the idea of the house in which the problem is how best to entertain *most interesting* guests. In the college or school dormitory we have again a specialized house. In the man's college dormitory, for instance, there are usually nothing but guest rooms.

How are you going to study an architectural problem when your advice is asked? Most plans of buildings that you may have to deal with may be considered from the *house* point of view and from the domestic point of view. Working from this as a start, instead of being worried (as one may very well be when his advice is asked, and, as I confess, I very often am, even after twenty years' experience in planning), you will go back to the house as a starting point and just build up from the knowledge that each of us has about a house, what you will need.

I will put a concrete case—of a concrete building perhaps. Suppose, for instance, a certain Miss A is at the head of May Hall, one of the normal school dormitories at Framingham. Suppose a new dormitory is about to be built and the trustees ask Miss A for her ideas as to what this new building should be. The architect should have certain facts from Miss A in order to get the best results. First, how large is the building to be? How many girls must it hold? Are there to be forty, sixty, or eighty? Will there be two girls in a room, or will each girl have a room alone? How are the toilet arrangements to correspond with the bed rooms? How many baths will be allotted to how many bed rooms? In connection with the sleeping rooms and the bath rooms there will be, of course, linen rooms, rooms for extra bedding, the trunk room and housemaids'

closets. These develop other questions: How are the trunks to be carried in and out? Are the servants to sleep in the building?

On what floor will Miss A, who is to live in the building, have her own suite of rooms? What will be the size of the drawing room? Will it be used for dances and theatricals? Shall there be a stage? How many people will come to a reception there? What do the girls do in the evening? How about arrangements for music in the building? What are Miss A's ideas about open fires, piazzas? How large will the dining room be? Will the forty girls sit at four large tables, or eight small tables? Will there be a teacher at each table? Will there be rooms for teachers in the building? Will the girls wait on themselves? If not, how many servants are needed, and how will all the many conveniences of the serving room be arranged most economically?

As for the kitchen, I should like to talk with Miss A for hours. Whenever I have a large kitchen to design, I am always appalled by my lack of intimate knowledge of what goes on in the kitchen. I know about linen closets and broom closets and butler's pantries a great deal better than most housekeepers. I have had experience gained from one hundred or two hundred different sources, and know what two hundred different women have wanted in their butler's pantries, but in the beginning the problem of a great kitchen seems to me an almost insoluble riddle. I want Miss A's ideas about vegetable and soup kettles, how often she has to have her soup kettle *retinned* and how much it would cost. How large a range and what kind will suit her best, and will she want a gas attachment and a charcoal broiler? How about the dish-washing sinks? Is the usual wooden hotel sink the one she likes? Will she need a dish washer, if she can have it? Of course I know that Miss A will have to buy her stores in bulk to keep house economically, and therefore her store rooms must be ample, but how large? And what about the refrigerators?

I have now gone over the main items which will come under Miss A's management, but of course I will talk over with her the question of heating, too. If there is no central heating plant as at Framingham, how much coal will it take to run the building? Would Miss A like a two-, three- or four-story house best?

If the trustees are wise, they will certainly put the architect in close touch with the superintendent, but Miss A may have been allowed to make no suggestions as to the exterior. There she may have been

turned down hard, knowing that her practical training does not include architecture. It is the supposition, of course, that the exterior of the building will be designed in one of the recognized architectural styles.

I have found to my real sorrow that people do not care to know about architecture. They do not take it seriously. In the first place the locality, the neighbors of the new house, the site, the amount of money to be spent must be taken into consideration, and all these together with the best possible style to *express* the building. That building exteriorly is the *best* building, which *best* expresses the purpose for which it is used.

A Study of Floor Materials.

JESSIE C. SAUNDERS.

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The natural materials commonly used for floors are marble, slate and wood.

Marble is expensive, $1.10[1] or more a square foot, but wears well and is easily cared for. Slate is less expensive, 75 cents a square foot, and is frequently used for stairs. The soft woods used for floors are cheaper than hard woods but do not make durable or beautiful floors. The slash of soft woods, that is, boards made from the middle part of full width boards, where the annual layers are parallel to the surface of the board, should never be used for floors, shelves or table tops, as it is apt to splinter. Rift boards are cut from the two outer portions of a full width board and will wear much better than slash as the annual layers are not parallel to the surface of the board. Plain wood floors and many parquetry floors are made of tongued and grooved ⅞-inch stuff.

Wood carpeting, another form of parquetry flooring, is made of ⅜-inch stuff glued to a stout canvas, and thoroughly nailed to the under flooring. Such a floor is said to wear very satisfactorily and gives as much depth of wood for actual wear as does ordinary flooring above the tongue. Parquetry veneer is ⅛-inch stuff and cannot be recommended. There are several patented systems of wood flooring

[1] *New York City prices are given throughout.*

using blocks or small pieces of wood and depending on some patented device to secure the upper floor to the under floor.

An ordinary under floor of common North Carolina pine will cost about 8 cents a square foot. Laid on this the upper floor of North Carolina comb grained pine will cost 11 cents a square foot; of Georgia comb grained pine 13 cents; of maple 14 cents; of birch 15 cents; and of oak 17 cents. The wood carpeting costs 27 cents a square foot and parquetry flooring of ⅞-inch stuff 42 cents. Of the patented floors a Rochester firm lays an oak floor for 38 cents a square foot and two New York City concerns for 50 and 60 cents respectively. These woodblock floors wear well, present a good appearance and have been laid in many government buildings, in some of Boston's public schools, in armories and, occasionally in hospitals. They are not satisfactory for dancing floors because of the continuous changing of the grain of the wood.

If a wood floor is used without treating the surface in some way, it soon becomes very unsightly and more or less unsanitary. The dust is fairly ground into the pores of the wood. Washing is small help for this only removes the dirt from the surface, while the water soaks into the fiber, causing the wood to swell and shrink alternately, to splinter, to decay gradually and to become dark and unevenly discolored. Moreover moisture is one of the conditions favoring the growth of bacteria, and the combination of soapy water and dirt which inevitably settles in the cracks between boards and around the bottom of the baseboard furnishes a medium for the growth of bacteria and insect eggs. Also, the floor is not only subject to hard wear, but it is fundamentally prominent as an element in the character of the room. If it is not treated as such, it strikes a discordant note that cannot be ignored or forgotten. The term commonly used expresses the fact:—the floor needs to be "finished."

To keep the floor from undue wear and to have sanitary and at the same time beautiful wood floors demands that they be covered with some protecting material. This may be done by using oil, shellac, varnish, a spirit varnish, or wax.

In her book, Home Economics, Miss Maria Parloa recommends using pure boiled linseed oil thinned with from one-quarter to one-half as much turpentine or alcohol. This must be rubbed in well; on new floors it should be used hot that it may sink in better, and after an hour polished with a woolen cloth. If the polishing is not done dust will adhere to the floor. Miss Parloa states that "such floors are not

easily soiled and they retain their luster and softness for years." She also states that this dressing can be used to advantage on a painted floor, on linoleum and oilcloth, but that the polishing must be given else dust will adhere, and on painted or varnished floor a cloudy appearance will be seen in a day or two. How often the treatment must usually be renewed is not stated. Oiled floors as commonly seen are not polished.

Shellac is often adulterated with resin, a more brittle gum, so that shellaced floors scratch badly. For ordinary household use it needs renewing every six months.

Varnish is also subject to adulteration but when good it makes a thin hard coating over the floor, bringing out and preserving the grain of the wood, protecting the surface from wear and rendering it more nearly sanitary. Two or three coats are necessary each requiring twenty-four hours to dry. In ordinary use it needs to be renewed yearly.

A spirit or alcohol varnish, called Farrington Floor Finish, has lately been put on the market. It is only adapted to hard woods but it dries in an hour and gives a much more moderate gloss than does varnish.

Waxes are of little use on soft woods. Two coats of wax may be used as a complete finish for a new hardwood floor. In ordinary household use such a floor should need nothing for a year except monthly polishing with the weighted brush and occasional retouching with wax in any worn spots. The next year's waxing can be done without removing the old wax. Or one coat of wax may be rubbed on top of shellac, varnish or spirit varnish, thus keeping this first protection from wearing off, neutralizing its too high gloss and making it possible to patch the spots that wear off. A sort of liquid wax called Waxene, a Boston product, can be used on a bare floor or as a finish over shellac or varnish, though it does not seem "to patch" so well as does hard wax.

Which is the most desirable method of finishing wood floors? Oil may not collect dust if polished, but it will undoubtedly darken the wood in the course of a few years. It is the cheapest treatment as to first cost. As frequency of renewal is not stated by Miss Parloa the up-keep cost is undetermined, but would be mainly for labor. Spirit varnish does not scratch as easily as do shellac and ordinary varnish, but all three wear off in spots, cannot be patched, and should be entirely cleaned off before a new coat is put on a floor. They do,

however, protect a floor momentarily from a chemical or anything hot or greasy spilled on it, and render a wood floor as sanitary as it can be so long as they are in perfect condition. The difficulty with shellac and varnish is that they begin to wear off immediately the floor is used and worn spots cannot be patched by applying more shellac or varnish. Shellac costs $1.50 to $2.00 per gallon and floor varnish from $2.25 to $3.50. The number of square feet that can be covered with a gallon will differ in accordance with the condition and kind of wood and the liberality in applying. Wax does not scratch and though it will wear off in spots, it can be patched perfectly. It protects the surface of the wood from general wear, but not from anything spilled upon it; it brings out the grain of the wood and makes a wood floor as nearly sanitary as possible. It costs rather less per hundred square feet than does varnish. To protect a wood floor as thoroughly as possible—also any stain, if such should be desired on a floor,—first put on a shellac, varnish, or the new spirit varnish,—preferably two coats. Then to prevent the shellac or varnish from wearing off in spots, as it surely would,—rub on a coat of hard wax, and polish it with a weighted brush. The wax must be renewed in spots as often as necessary to keep the under finish from wearing off. So treated, the shellac or varnish may be kept intact and no troublesome yearly renewal necessitated. Careful oversight of worn spots will be needed, but sanitary and attractive wood floors cannot be secured by neglecting them nor by washing them.

The artificial materials used for floors are in small units constantly repeated or in large surfaces. The common penny tiles cost 32 cents and the 2-inch hexagonal from 38 to 42 cents a square foot. Glass tiles are more expensive, $1.00 and $1.25 a square foot, and are not much used. Rubber tiles are about 10 per cent rubber and can be laid on either cement, concrete or wood providing it is level. They cost from $1.00 to $1.15 per square foot, or possibly a little less for a large contract. They have been on the market about fifteen years and promise to wear a long time. In elevators they wear out, but are subjected there to very hard use. Where one hall joins another the rubber tiling sometimes buckles up a little. This is rather expensive to repair and the new tiles show. The cost of upkeep in daily cleaning is considerable, as slight soil shows plainly. Halls where there is rubber tiling in Roosevelt Hospital, New York City, are washed twice daily and three times on visiting days. Rubber tiles are excellent for an incline and are very easy to walk on. They have been used

in many public and semi-public buildings, railroad terminals and ferry-boats. The City Hospital of Akron, Ohio, has rubber tiling throughout.

The artificial materials furnished in large surfaces include linoleum, rubber carpeting, monolithic compositions and a new material named agosote. The Germans manufacture heavy grades of linoleum, two or three times as heavy as is commonly used in America. They are using it somewhat in hospitals and on war vessels. A new hospital in Frankfort has wide strips of linoleum cemented through the centers of the corridors which have colored tiles at either side. Considerable colored tile and colored glass has been used in this building with excellent effect. A new hospital in Fall River is using linoleum throughout. Rubber carpeting has been in use for twenty years and can be made in sections as large as twelve feet square, or in strips three feet wide and of any length. It may be cemented to a level floor and wears twenty years or more, and costs from $1.05 to $1.20 per square foot. A worn spot can be cut out and repaired, and it is easily washed. It is used in many of the Pullman cars, in offices, and public buildings.

There are several styles of monolithic flooring. All alike are laid in a plastic condition on the underflooring, either wood or concrete, thus making possible coved sanitary bases and corners. They are not so heavy, so inelastic, or so cold as are clay tiles and are less expensive, costing from 23 to 50 cents a square foot according to the manufacturer selected and the size of the contract. If alterations involve breaking it, it can be mended and promises to be very enduring. It will inevitably show cracks if the building settles unevenly. Some makes have been on the market fifteen or twenty years. It has been used in hospitals, schools, public buildings and private houses. The French Hospital in New York City has one of these materials, called asbestolith, throughout its halls and wards and is well satisfied after six years' use. This particular monolithic material should not be washed with soap as the alkali of the soap unites with some ingredients of the asbestolith and causes it to disintegrate somewhat. In the French Hospital the halls and wards are mopped daily; every two weeks they are scrubbed by hand, and six times a year they are rubbed with crude oil. The head nurse says, "they are easier than tile to care for and as good as wood for the nurses' feet."

Agosote is a new material introduced from England where it has been manufactured for twenty-five years. It is made of paper and

rags, treated with chemicals, pressed into slabs, treated with an emulsion, and again subjected to great pressure. It has been used as a substitute for wood panelling in railway coaches all over Europe and even in South America, and is now being used for this purpose here. It can be painted, grained, varnished and polished to look exactly like any variety of wood. It can be kept for any length of time in boiling water without disintegrating, and will be thus made pliable so that it can be pressed into any desired shape, which it will retain when dried again. It is thus used for the curved roofs of railroad cars. It has some elasticity and may be developed into a successful flooring material by the American owners of the patent, The Pantasote Company of New York City.

Of nine hospitals visited, five have pine floors in the wards. In two of these, Bellevue and the Presbyterian, they looked clean and attractive. Bellevue is a new building, and the ward floors are cared for by men who clean with a vacuum cleaner in the morning and polish the floors in the afternoon every day. Every two weeks the spots are removed and new wax is rubbed on and polished. One man needs an entire afternoon to refinish a large twenty-four bed ward.

At the Presbyterian Hospital the wards are washed with oxalic acid and water every three months and then rewaxed with a preparation made in the hospital, and consisting of 5 gallons of turpentine, 20 ounces yellow wax, and 30 ounces paraffin. The waxes are melted and the turpentine warmed in a hot water bath and added gradually to the melted waxes. To each 5 pints is then added 2 drams of ammonia water. It is put on with long handled brushes and must be used hot. Five men care for all the floors and are each paid $18.00 a month.

The wards at the third hospital (Mt. Sinai) are varnished once a year necessitating the temporary disuse of each for several days. Linoleum is laid all around each ward. When the floors are fresh they look fairly well, but soon become more or less dark in spots according to the degree of care given by each maid. The floors are simply wiped up with a damp cloth each day.

At the Roosevelt Hospital the wards were stained dark years ago and are restained and varnished every year. They are ugly and unsatisfactory. At the Hospital for Women, 19 West 101st Street, the floors have been kept bare and washed for fourteen years. The directors are now considering covering them entirely with one of the monolithic floor materials.

The wards at the New York Hospital have floors of German colored

tiles, laid thirty years ago. They have been kept in good repair at trifling cost. They are washed daily with a green soap solution made in the hospital, the maids using scrubbing brushes with long handles and also managing a rinsing cloth with a long handle. Patent wringers are not popular with these maids. A little hand scrubbing is required occasionally for door saddles, base boards and corners.

At the Sloane Maternity Hospital both German and domestic tiles are used and daily scrubbing is necessitated. Some of the tiles have a slightly polished surface and are much more easily cleaned. A marble floor in the main hall is even more easily kept in order.

Some wards at the Post-Graduate Hospital have tile and some a monolithic material, which is rather dark in color but is easily kept clean by mopping. The tiles need to be scrubbed with Sapolio to be kept in good order. The 2-inch hexagonal wear much better than the penny tiles, or small hexagonals. Here also they have a few wood floors, though not in wards, which had been left bare fifteen years and only washed. This year they decided to treat them differently, but it was found the wood was so filled with dirt and the boards so swelled that nothing at all satisfactory could be accomplished.

The ninth hospital (French) has monolithic floors in all halls and wards and is well satisfied. Of the nine hospitals not one considers wood floors desirable. Monolithic floors have been tried in only three of the nine, but are found satisfactory. Tiles are recommended by the other six.

Wood floors are least expensive in the first cost, but cost considerable for up-keep. As numerous cracks are eventually inevitable, even with the best of care, wood floors are not ideally sanitary.

Patented monolithic flooring comes next in expense, and for some makes is really very little more expensive than are the two floorings of wood. The cost of up-keep is less than wood and the floors are more durable. Clay tiles rank next both for initial expense and for up-keep cost, and rubber tiles are still more expensive.

In public and semi-public buildings wood floors should be avoided if possible. Considering the cost of up-keep some of the monolithic materials are cheaper than wood at the end of a few years. Wood should certainly not be used in halls and corridors.

DISCUSSION.

Monolithic floors on factory kitchens for lunch rooms in Buffalo have proved a great success, and are used for dancing when these rooms are given up to entertainments for employees.

The Good Roads Commission has experimented with cement mixtures, especially for roads, where they are subject to wear under definite conditions and so are thoroughly tested. Where an institution is considering laying cement floors it would be wise to consult Mr. Logan Waller Page of the Commission (address Office of Public Roads, United States Department of Agriculture, Washington, D.C.). His mixture is an original one unless the Romans solved the same problem 2000 years ago.

An asbestolith floor laid over a laundry was disintegrated by the heat. It is sometimes laid over wire netting on wood and is very beautiful when waxed.

In answer to the question, "What is the latest method of deadening a floor," filling for 2 inches between the joists with saw dust and mortar was recommended, doing this both above and below if possible. If there is not space, lay strips 1 inch above the plain floor and fill with mortar and saw dust. Asbestos lumber and shingles were also suggested as satisfactory but this is hard on tools. It was suggested that there should be a committee on such materials, to bring together the results of the best construction and experience.

Floor materials exhibit.—An exhibit of modern floor materials, sent from Teachers College, displayed samples from the following firms:

Marbleloid Company, Broadway and 34th Street, New York; Asbestolith Manufacturing Company, 1 Madison Avenue, New York; James G. Wilson Manufacturing Company, 3 West 29th Street, New York; I. H. Wiley Waxine Company, Boston; Warren Brothers Company, 59 Temple Place, Boston; Nightingale Company, 277 Broadway New York; American Encaustic Tiling Company, New York; Wood-Mosaic Floor and Lumber Company, Rochester, N. Y. and New Albany ,Ind.; J. Percy Day, E. Victoria Street, Westminster, London S. W.; Pantasote Company, 11 Broadway, New York; Goodyear Tile and Rubber Company, New York; Mart and Lawton, New York; Farrington Company, Metropolitan Tower, New York; Buttle Parquet Floor Company, 607 West 43rd Street, New York; and Pennsylvania Rubber Company, 1741 Broadway, New York and Jeannette, Penn.

INSTITUTION ACCOUNTING AND RECORDS.

An Outline of Accounting for Institutions.

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We must recognize at the start that cost accounting attempts to give information that shall guide managers in the solution of three sorts of problems: first, how may prices be adjusted to the service rendered; second, does the utmost economy prevail in production and service, and if that is not found how may one trace the waste; and third, had certain work best be performed in their own establishments.

As an illustration of the first of these, need arises for some scientific method of fixing the prices of rooms in a college dormitory or in a hospital, so that the prices paid shall be adjusted to the comparative value of the rooms furnished. It may be true, of course, that in many cases prices are determined by what in railroading is called "charging what the traffic will bear." Thus, although it would normally seem that in some cases a higher price ought to be fixed, putting the charge on the same basis as the charges for other services such a basis would in reality make the charge prohibitive, and so adjustment must be made to that fact. In such a case the price must be lower than that which ought ordinarily to be charged, and that reduction in price is really of the nature of a rebate. If the accounting is serviceable, however, it will make note of both facts—that is, the fact that the actual cost of rendering the service is high in that case, and the fact that the price charged does not bear the same relation to cost that price bears in other cases. Unless the accounting takes note of both facts, it fails to tell the truth.

It is worth while at this point to note what is the purpose of accounting, for commonly a misapprehension prevails. It should be understood at the outset that accounting has nothing whatever to do with questions of policy. The purpose of accounting is to tell about business transactions the truth as exactly as it can be learned, and

the determination of the truth should be without respect to persons, prejudices or policies.

It may happen that for reasons of policy the price charged for service rendered is lower than the normal price. In a certain hospital the prices charged for certain private rooms are really lower than on any basis of cost they ought to be. The managers have made this arrangement with the distinct purpose of encouraging persons of means to come to the hospital for treatment; for they believe that the service rendered will be deemed so valuable, and the interest aroused in the hospital so great, that these persons will become valuable friends of the institution and that their influence will increase subscriptions and endowments. This may or may not be wise policy, but good accounting requires that some note shall be taken of the fact and that its cost for advertising purposes shall be considered.

As an illustration of the second sort of problem which cost accounting should help to solve is the economy of laundry work done on the spot. If it is found in any institution that the cost for laundry is 20 per cent higher than the average of other institutions, the management is not doing its duty unless effort is made at once to learn why this is so and whether it can be prevented. The conditions may be such that there is no escape. Then the question arises whether it would be cheaper to have the laundry work done outside.

As an illustration of the third sort of problem, we may take that which arises in many institutions concerning unused land. Most institutions have a considerable tract of land for air, light, and prospect, and much of this could be utilized for raising at least some summer vegetables. In many cases where this has been done the apparent cost of food has been much reduced. Yet it is impossible to know whether this is worth while unless one can know what is the expense for labor attributable directly to the vegetables raised. If the engineer or other employees have much leisure during the summer and that leisure can be devoted to this use, gardening of this sort is likely to be profitable. Only careful accounting can determine just when it is so under these or any other circumstances.

All three of these purposes of cost accounting demand that costs be known as exactly as possible; and the second of these demands that a manager shall know not only the cost in his own institution but in a great many others, for only then can he make comparisons between his own establishment and others and learn whether his costs are excessive. One encouraging feature in institutional service

as compared with commercial service is that the only rivalry that can be acknowledged—at least with a good face—is rivalry in efficiency. Every good institution is interested in institutional progress and is glad to conduct experiments and share results with others. Indeed, institutional progress would have been far slower if there had not been something of a professional spirit at work. Professional ethics demands that each person in charge of an institution shall have not only something of scientific eagerness to learn how things can best be done but also altruism enough to help others to benefit by his experience. In order to make possible comparisons of institutions under somewhat similar conditions a uniform scheme of accounting is essential. This means, moreover, something more than a uniform scheme of accounts; for even institutions with accounts of identical names may have results which are not at all comparable; uniformity must extend to the content of the accounts even more than to their forms and names. Before results can be made at all comparable we must be sure that in all institutions under consideration exactly the same kind of things are charged to each account.

Virtually, every institution manager who is subject to trustees or other superiors is eager for additional funds, for he believes that work can be done more economically or at least more satisfactorily with larger capital. The most efficient instrument for inducing trustees to supply needed funds is a statement of financial results which shows not only exactly the cost of each kind of service rendered but how those costs are related to similar costs in other institutions. Trustees are usually business men who know the value of a dollar. They wish to know definite facts about the yield of the dollars entrusted to them, and they are far more interested in these than in hypotheses and mere managerial ambitions. Every institution has some advantages over other institutions, and every one has some handicaps; but the good manager will attempt to learn by concrete figures exactly what are his handicaps and what they cost, and what are the actual savings from his advantages. He should not allow the handicaps for which circumstances—or the trustees—are responsible to swallow up the gains for which the credit is properly his. Until uniform accounting, or at least something approaching it, becomes common, no manager will be in a position to make clear to his trustees just what are the handicaps under which he is working and just what are the economics that have resulted from his management. As an illustration, I know a hospital turning away paying patients for lack of room, and yet

giving its matron private quarters which if let to private-room patients would yield several hundred dollars weekly; total costs in this hospital are high, far above its income; another hospital nearby, practically self-supporting, gives its matron quarters worth not half so much; yet the hospital giving its matron expensive quarters shows a lower administrative cost than the other. The objection is not necessarily to the spacious quarters supplied to the matron but to the fact that the accounts take no cognizance, in the administrative cost, of anything but salary, and therefore the result of this extravagance of space does not appear, and a comparison of the two sets of accounts is sadly misleading. Comparisons of accounts when the method of accounting is different are worse than useless, for they may show an advantage where there is really a handicap.

Let us now turn to the methods of learning costs. First, the accounts for each department having an exclusive function should be as far as possible distinct from those of every other department. The steward's department, for illustration, is concerned with food in a more or less raw state—except, perchance, so far as food is purchased necessarily in a cooked state, as are shredded wheat and numerous other cereals. It may chance that in some institution the purchasing is careless and therefore the costs high, and yet the cooking is extremely economical. In such a case, unless a distinction is made between the steward's department and the kitchen department, the normal gross cost for table board, if only that figure is preserved, may hide the fact that one department is well managed and the other ill. The kitchen should be charged for the cost of cooking food and for that alone; this should include the cost of fuel, labor, repairs, etc. The serving department should also be distinguished from the others, for in some cases there is very great wastefulness in the unfortunate arrangement of the establishment, so that the cost of service brings up the total cost of food in spite of the fact that both the purchasing department and the cooking department are well managed.

The expense of the purely housekeeping items, such as sweeping, dusting, and scrubbing, should not be confused with other expenses. Where some of this work is done by persons employed primarily in other departments, as is often the case in hospitals where the nurses have charge of patients' rooms, an attempt should be made to distinguish between that part of the nurses' wages which is for professional care of patients and that which is for housekeeping. At least it is true that the cost of taking care of the general rooms, such as halls, stairways,

reception rooms, assembly rooms, etc., should be carried distinct from the cost of the care of private rooms. Laundry charges should be carried distinct from all others, and should include fuel, soap, starch, labor, etc.

The cost of the care of grounds should be separately determined; this would ordinarily include the care of flower beds, the mowing of lawns, shoveling snow from walks, etc. This appears on the face of it to be a small item, but it is obvious that an institution having large grounds with many walks has a very much heavier charge in this respect than others, and a manager who is judged by his total cost per resident-day is handicapped as compared with a manager who has no expensive grounds to care for; he should be able to point out to the trustees of his institution just what it costs to maintain its external attractiveness. Separate accounts should be kept for maintenance of buildings and for maintenance of equipment. Of course, as in all business operations, separate accounts should be kept for taxes, insurance, water, gas, electric light, legal expenses, etc.

The accounts just mentioned may be called the primary accounts. These require nothing more than simple bookkeeping. We must now pass on to the accounting which involves an analysis of transactions so that the distribution of charges may be properly determined. In order that we may know what are the exact costs for various kinds of service it is necessary to know not only the total per capita cost per day but the per capita cost of each of many separate items per day. We must distribute most of what are commonly called "overhead" costs—that is, costs incurred for several services in common—among the various departments.

To say that we must know the costs of rooms for employees is not to recommend stinginess in provision for them; to say that we must figure the difference in cost between a seven by seven bed-room and a ten by twelve bed-room is not to recommend the seven by seven bed-room; it is only to say that we must know what we are getting for the money spent. All the costs which are indirectly incurred for any department should be ultimately carried to the accounts of that department. It will cost more to do the laundry work in an establishment paying its laundresses such high wages that they can live comfortably in rooms which they must hire in the neighborhood at normal city lodging-house prices than in an institution where the laundresses are boarded on the premises; and if the accounts in both of these cases charge to the laundry department only the actual

money-wages paid, one will show a high labor cost and the other a cost singularly low. Before any comparison can be made between the two cases, therefore, the laundry accounts must be brought to a common basis and the cost figures for laundry work must include not only the obvious primary costs like fuel, supplies and wages, but also a charge for laundry space, for laundresses' rooms, for food (including cooking and serving), for the laundresses' own laundry work (if done in the laundry), for lighting, for heating, etc.; and we must realize that included in the cost of the rooms are necessarily not only the care of the rooms but a share of insurance, taxes, depreciation, etc., on the cost of the building. In other words, every secondary cost involves many other secondary costs, and no comparison is possible between two institutions until a general scheme of distributing such secondary costs has been applied to them all.

This sounds very complicated. As a matter of fact, however, when a system has once been devised it is not a laborious task to make a proper distribution of secondary costs, and no extensive bookkeeping is involved. When the primary accounts have been charged with the obvious items of cost, we have merely to subdivide the total of those which stand at the foundation of the whole institution and distribute them among the various departments on an equitable basis. For illustration, insurance on buildings, taxes on buildings, depreciation of buildings and repairs of buildings, are shared by the various departments in the ratio of the building space occupied. Usually the square foot of floor space is a satisfactory unit for distribution—unless, indeed, it chances that some stories are higher than others or some buildings are less expensive than others. It is obvious that if the first story has a height of twelve feet, the second ten, and the third eight, it is hardly fair to distribute room costs on the basis of floor space alone, for the expense of the structure lies in height quite as much as in horizontal dimension. Ordinarily, too, an upper floor is less desirable than a lower. In the matter of cleaning, window space and wall space may be quite as important as floor space. The actual distribution must be determined in every case by the circumstances of that case, and when the principle has once been recognized there is likely to be very little serious discrepancy as between institutions. Ordinarily, it is enough to say that if the dining room occupies one thousand square feet and the whole establishment occupies fifty thousand square feet, the serving department should bear one-fiftieth of this group of expense—as well, of course, as an additional share

determined by the floor space occupied by waitresses' sleeping rooms. Lighting may well be distributed by the ratio of the number of lights in a room to the total number, although, of course, allowance must be made for rooms which are only occasionally lighted. Heating would ordinarily be distributed on the basis of cubic capacity—for the normal time a room is heated.

The most complicated figure to get is likely to be that for food costs, —at least in an institution supplying several kinds of diet. In a hospital, for instance, there is likely to be a table for house officers, which may or may not be the same as that served ordinarily to patients in private rooms; next in order is likely to come the regular house diet for patients in wards and for nurses; next comes the coarser diet for non-professional employees; and last, the fever or liquid diet. Many institutional managers will say that the attempt to learn just how much food goes to each of these groups of diet is more expensive than the value of the information will warrant. I believe they speak without adequate knowledge, for much of the needed information is—or should be—at hand.

In any accounting worthy of the name careful store records are kept. Everything going into the storeroom is debited, and everything going out is credited. Many things go out of the storeroom for use in all four of the classes of diet mentioned, and many others go out for the use of only one of them; but it is always someone's business to know the destination of everything issued. Three kinds of records of stores going into the kitchen will usually give all necessary information with a minimum of labor. The first of these should show for each meal the foods peculiar to one diet—such, for instance, as high-cost fruits or meats for private patients. The second sort of record should show for each meal the foods common to several diets but peculiar to that meal, such as vegetables and desserts. The third sort of record should show for long periods—*e.g.*, monthly—the consumption of common foods general for all diets. A small amount of additional labor will give the exact cost of food material for each diet.

Lists of the first sort, that is, for foods peculiar to certain diets, must, of course, be made out and figured for each meal; but as a matter of fact the housekeeper must regularly provide such a list as a guide in the preparation of the food, and the only additional labor necessary for learning costs is that of entering the amount consumed, the price, and the product. The calculation may of course be made in the office at convenient intervals.

Exactly the same thing is true of the second sort of lists. The total cost divided by the number of persons served gives the cost per person for each thing served. Food listed on the third sort of record, such as flour, sugar, butter, milk, etc., ordinarily needs to be registered only monthly, for these things are presumably consumed in something approximating a steady proportion for all kinds of diet. It may be known, for instance, that persons on fever diet consume only one-eighth as much flour and sugar as those on house diet. If that is the case, the number of fever-patient meals should be divided by eight before determining the ratio. If account of stock is taken monthly, the figure of cost for foods of this sort may be determined by dividing the cost of the total consumption for the month by the number of meals served, and charging each department on the basis of its own number of meals.

At the end of the month we have in these records the total cost for food for each class of diet, as follows; list 1, total cost of special foods; list 2, total cost of foods common to several diets but not common to all meals; list 3, total cost of foods common to all diets and all meals. The total of each list divided by the number of meals served on that list gives the average cost per meal for that list. For each class of diet, the sum of the averages of those lists which served that diet is the total average food cost per meal.

If to this food cost we add the kitchen cost—which is the sum of the space-cost of the kitchen, cooks' wages, fuel cost, rooms and board of cooks, etc.,—the serving cost, the housekeeping cost, the laundry cost, room cost, etc., we have the total cost per resident day. This is obviously our final figure, the ultimate thing sought,—for all the departments are subservient to the residents. As we go along, however, we determine for each department its own cost, in order that we may know whether it is most economically managed.

Under the method of primary and secondary accounts outlined above any number of subdivisions may be made, and even with uniform accounting an institution desiring to trace any detailed costs may make as many as it likes without destroying the uniformity, if only its subdivisions are based on the uniform plan—that is, are capable of combination to produce a total identical in significance with that of the institutions which have not made subdivisions. The minute subdivisions would ordinarily be kept for purposes of comparison one year with another within the institution, whereas the figures for groups as a whole would ordinarily be kept for comparison with those

for other institutions. It is not ordinarily possible to compare detailed figures with those for other institutions, for conditions are widely different. Total laundry costs per resident day, for instance, may well be compared between institutions, but the cost of fuel should be used for comparison mainly within the institution itself; for one laundry may use coal, another wood, another gas, another oil, another electricity, and another steam.

Accounting is something more, however, than determining mere financial facts. Statistics are of great importance in making it possible to learn why differences in costs persist. With regard to food, for instance, it is true that institutions in some places are able to buy meats much more cheaply than others, but suffer a considerable loss in comparison with others in the purchase of groceries. Differences are very great with regard to dairy products. If, then, we are going to compare food costs and get results worth anything, we must know something of the conditions under which each institution operates. We need to know not only what prices it is forced to pay, but also what is the prevailing tendency in that institution with regard to the kind of diet furnished. For this purpose it is well to keep statistical figures for the average price of several groups of food, such, for instance, as beef, mutton, lamb, fowl, butter, milk, eggs, etc. To these may well be added the average price per pound for certain staple articles like flour, sugar, tea, coffee. Lastly, in order that the records may show the relative importance of various classes of food in the total cost of diet, the total expenditure in each of these groups should be reported. These groups may well run as follows: meat, poultry, fish, groceries, fresh vegetables, canned vegetables, fresh fruits, dried fruits, canned fruits, butter, milk, cream, eggs. Such figures would show surprising differences between different institutions. If any establishment shows a conspicuously low purchasing power of money, that fact should stand out so clearly that the reason is sure to be investigated.

Innumerable other statistics not burdensome to compile are valuable as guides in determining comparative costs. For illustration, the number of pieces of laundry work, distinguishing the character—as by separate count for sheets, towels, pillow cases, etc.—is important if per capita costs are to be compared. The area of garden plots, of lawn to be mowed, and of walks to be kept free of snow, are convenient figures. The area of floors swept weekly per capita gives a hint as to the comparative cost of housekeeping labor. Many of

these figures, such as areas and ratios of area, are practically unchanging, and calculations once made are good for months or years. When ratios need to be applied to changing monthly totals, calculating devices like the slide-rule and adding machines may be utilized so as almost to eliminate clerical cost.

In closing, let me reiterate the need of uniformity. No man ever progressed far if he relied wholly on what he learned by his own experience. It is absurd to spend time and money learning for yourself what your neighbors learned years ago,—or even what they are now learning. If they are conducting experiments in some lines, you can most profitably conduct experiments in another. Then compare notes and teach one another what each has learned. Only through uniformity, however, can you ever compare notes and profit by one another's experiments.

Shop Methods Applied to Household Administration.

Miss Florence Cushing, who had visited the Bethlehem shops where Mr. F. W. Taylor has introduced the results of scientific time study as a foundation for the best management, gave a brief account of his success in coupling "high wages for workmen with low labor cost for employer." The first requisite is "knowing exactly what you want men to do, and seeing that they do it in the best and cheapest way." The key note is coöperation in place of opposition. First class tools, in first class order, are required.

Mr. Taylor has spent over $60,000 in experiments of time study, with a stop watch. He began by watching the best pig iron worker at Bethlehem, who did just as directed and increased his output from 3 to 4 times. When thus standardized, picked men were put on piece work with the result that in two years, from 400 to 600 laborers handling raw materials, who had been paid $1.15 a day, accomplished tasks from 3½ to 4 times as great and were paid $1.85, every man handling 57 instead of 16 tons each day. There were only two drinking men among these picked workers, and all saved money and lived better.

Time study and an improved system in the inspection of balls for bicycle bearings resulted in 35 girls, who had been in service from 8 to 10 years, doing the work which formerly required 120. They averaged from $6.50 to $9 a week instead of from $3.50 to $4.50.

A study of motions in laying bricks was made, just how high mortar should be placed above the scaffold; the size of hods was also figured. The result was that 17 motions were reduced to from 5 to 7 with unskilled labor. Work in the Bethlehem Steel Company has been revolutionized. In Berlin 1000 engineers are studying similar methods. These ideas have been applied in some cases without intelligence and have failed, injuring their reputation. Mr. Taylor himself uses the utmost care, will spread the system only through his own men, and is not yet ready to print results.

DISCUSSION.

There is one serious objection to this method. A man has to do everything by prescription and there is no chance to use his own brains, which is vital to the progress of the workman. The most serious problem in the mechanic arts is that it makes a man a machine. We must also shorten hours or spoil the man.

Professor F. G. Benedict has studied the amount of energy required in type writing, and hopes to measure in calories the energy expenditure for all kinds of house work.

We are putting into human life improvements for increasing efficiency. Look over the results of progress in the mechanic arts, the automobile, flying machines, wireless communication; why not increase the efficiency of human life from 5 to 10 fold in the future by such methods?

BRIEF RECORDS OF THE FIRST SECTIONAL CONFERENCE ON HOUSEHOLD AND INSTITUTION MANAGEMENT OF THE ADMINISTRATION SECTION OF THE AMERICAN HOME ECONOMICS ASSOCIATION.

Following an invitation from the Lake Placid Club, an important conference of members of the American Home Economics Association engaged in household and institution administration, or in related teaching fields, was held at the Lake Placid Club, Essex County, New York, from Tuesday, June 28 to Saturday, July 2, 1910.

The formal program for the conference as presented was as follows:

Tuesday, June 28.

The expanding field of household administration.—Miss Adelaide Nutting, Teachers College, New York City.

Certain phases of instruction in institutional management.—Miss Sarah Louise Arnold, Simmons College, Boston, Mass.

Dormitory life for college women.—Miss Marian Talbot, University of Chicago.

Qualification and training of the head of the college dormitory.—Miss Lydia Southard, House Director, Whittier Hall, Teachers College, New York City.

Essentials in the training of dietitians.—Miss Florence R. Corbett, Whittier Hall, Teachers College.

Practice-fields for students in institution management courses.—Miss Mary Urie Watson, Macdonald Institute, Guelph, Ontario.

The pupil dietitian.—Miss Grace E. McCullough, Mass. General Hospital, Boston Mass.

Wednesday, June 29.

The institution kitchen and dining room: Its arrangement, equipment and service.—Miss Martha Van Rensselaer and Miss Flora Rose, Home Economics Department, Cornell University, Ithaca, New York.

Dining room management.—Miss Charlotte Way, Domestic supervisor, Rockford College, Ills., Mrs. Mary H. Moran, New England Kitchen, Boston.

Menus and meal systems.—Mrs. Melvil Dewey, Lake Placid Club.

Nutrition investigations in relation to dining room management.—Dr. C. F. Langworthy, U. S. Dept. of Agriculture, Washington, D. C.

Lunches for High School Students.—Miss Emma Smedley, William Penn High School, Philadelphia, Pa., Miss Alice C. Boughton, Starr Centre Association, Philadelphia, Mrs. Alice M. Hotchkin, supervisor of high school lunch rooms, Rochester, New York.

A lunch room for working girls in which simple instruction is given.—Miss Katherine Lage, Manhattan Trade School, New York City.
School diet in relation to growth.—Miss Gwendolyn Stewart, Seranton, Pa.

Thursday, June 30.

Domestic and institutional laundries.
Equipment.—Miss Clara D. Noyes, St. Luke's Hospital, New Bedford, Mass.
The laundry as a commercial enterprise.—Miss Jane Seymour Klink, Brooklyn, N. Y.
Courses of instruction in laundry management.—Miss L. Ray Balderston, Teachers College.
Standards of linen supplies in institutions.
The hospital linen supply.—Miss Louise Powell, Superintendent of training school for nurses, Hospital of the University of Minnesota.
The organization of service in institutional households as regards time and other factors.—Miss Alice Patterson, Mt. Holyoke College, South Hadley, Mass.
The general organization and administration of college dormitory groups.
2.15 p.m. Business session.

Friday, July 1.

Architecture in its relation to institutional administration.—Henry W. Wilkinson, New York City.
A study of floor materials.—Miss Jessie C. Saunders, New York City.
Decoration and furnishing of college and school dormitories.—(Discussion.)
The financial management of institution households and dining rooms.
An outline of accounting for institutions.—Prof. William Morse Cole, Harvard University.
Melvil Dewey, President Lake Placid Club.
3 p.m. Discussion—Accounts, architecture, floorings.

Saturday, July 2.

Ideals in the administration of the college dormitory.—Mrs. Marion Lincoln Chamberlain, Dean of Women, Rhode Island College, Kingston, R. I.
Business meeting of the section on institution management.

An address of welcome to the Lake Placid Club was given by its president, Melvil Dewey. Mr. Dewey briefly reviewed the progress since eleven pioneers came together at Lake Placid eleven years before to discuss how best to apply the teachings of science to the problems of the modern home and how to introduce such teaching into schools of all grades, and then spoke as follows:

To-day we are laying the corner stone of a new profession, demanding trained women of the best ability. This meeting is a mosaic of teachers and administrators. Many educators teach before they

know just what to teach. The appropriation of a salary and appointment of a professor is not enough to establish a new course of study, for we must know the best way to do things and just what to teach. The world is now in unstable equilibrium; just as fast as something better is found it accepts new things. It wants to improve but there is too much inertia. Many things are now in the air. We must focalize and interchange ideas by that subtle mental chemic action and reaction which crystallizes thought. We must formulate, record, and constantly improve as in therapeutic medicine.

The best things are usually started by a few earnest people with faith. The influence of this meeting, which is five times larger than the first, eleven years ago, will be felt through college dormitories, schools, apartment hotels, coöperative homes and institutions of all kinds. In ten years we shall see greater progress than in the past decade. We have dreamed dreams and seen visions but this work is still in its infancy. They key note of this meeting is, we must first know *what* to teach as the best methods.

At a business session held June 30, the following were chosen as an executive committee: Mrs. Melvil Dewey, Lake Placid Club, Essex Co., N. Y., chairman; Miss Adelaide Nutting, Teachers College Columbia Univ., New York City; Prof. Wm. Morse Cole, Harvard University, Cambridge, Mass.; Miss Martha Van Rensselaer, Cornell University, Ithaca, N. Y.; and Melvil Dewey, Pres. Lake Placid Club, Essex Co., N. Y. Miss Lydia Southard, Teachers College, Columbia Univ., New York City, was later appointed secretary.

Committees were also appointed, as follows:

On Existing Demands in Institution Work, Miss Martha Van Rensselaer, chairman; Administration, Mrs. Melvil Dewey, chairman; Curriculum for Training for Institution Management, Miss Florence Corbett, Teachers College, chairman, and Miss Lydia Southard, Teachers College; and Resolutions, Dr. Benjamin R. Andrews, Teachers College, Miss Maude Gilchrist, Mich. Agricultural College, and Mrs. Olaf N. Guldin, chairman Home Economics Department, General Federation of Women's Clubs, Fort Wayne, Ind.

Among the resolutions reported by the Resolutions Committee and adopted at the closing meeting, July 2, were the following:

(1) It is significant that this first conference should meet at the same place and under the same auspices as the first conference on Home Economics a decade ago. We congratulate Mr. and Mrs. Dewey on their services to the cause, and we hereby express our appreciation of their great contribution to the work.

(2) (*a*) That the conference emphasize the ideals of rational living in home, institution and community life; (*b*) that we utilize all proper methods to advance these ideals in education in both elementary and higher schools; (*c*) that we urge the necessity of a professional training for those concerned in household and institution management; (*d*) that we work for increased government support of scientific investigation in this field, and a similar provision in universities and technical schools; (*e*) that we arrange for the preparation and dissemination of needed literature on institution management; (*f*) that we organize and assist meetings and conferences where these subjects are considered, so that the public may realize their importance as a basis of conservation of human life, as well as of material resources.

(3) That the conference records its conviction of the great importance of sectional conferences like this dealing with definite divisions of Home Economics as well as the general meetings whose programs include the whole field of Home Economics, and that we request the committee on institution management to arrange for a conference in 1911.

(4) That we express our appreciation of the great value of the JOURNAL OF HOME ECONOMICS, and urge our members to extend its circulation among institutions, libraries, clubs and individuals who will find it valuable as the authoritive publication in the field of home and industrial management.

That the executive committee of the American Home Economics Association be requested to consider the possibility of adding some supplementary phrase on the title page of the JOURNAL which shall express its relation to the institutional field—for example, "JOURNAL OF HOME ECONOMICS—Home, Institution, Community."

(5) That the conference approves the proposed federal legislation providing national support for education in Home Economics; specially that we urge favorable action by congress on the Davis-Dolliver Bill which will extend support to secondary and normal education in Home Economics.

(6) That the executive board of the section be authorized in the interval between its meetings to act on any matter which four-fifths of the board agree shall not be postponed till the next meeting, and where the action proposed correctly represents the majority sentiment of the section.

(7) Resolved that the members of this conference express their sense of loss in the death of Mrs. Adelaide Hoodless who so long and ably promoted the cause of Home Economics education in Canada.

In addition, the section voted to ask that a committee of five be appointed to formulate standards of certification to be required in Home Economics training, similar to the standards required for certified public accountants; that a committee on laundry and linen supplies be appointed, this being referred to the committee on administration; that the committee on resolutions be asked to formulate a protest against the vulgarity of so much elaborateness and display in relation to food; that it is desirable that the Graduate School of Home Economics be affiliated with the American Home Economics

Association; advocating the admission of suitable advertising to the JOURNAL OF HOME ECONOMICS; and asking that the JOURNAL issue a special number, containing the proceedings of the Conference.

The conference then adjourned.

LIST OF ATTENDANTS AT THE CONFERENCE.

ALLEN, LYDIA G., 24 S. West St., Media, Pa.
ALLINE, ANNA L., 74 Cottage St., Buffalo, N. Y.
ANDREWS, BENJ. R., Teachers College, Columbia University, New York City.
ANDREWS, MRS. B. R., New York City.
BALDERSTON, L. RAY, Teachers College, Columbia University, New York City.
BARBER, CARRIE B., Northfield Seminary, East Northfield, Mass.
BARCLAY, MRS. SOPHIE C., Margaret Bennett Home, Baltimore, Md.
BARNUM, MRS. CHARLOTTE P. ACER, Pittsford, Monroe Co. N. Y.
BARNUM, NATHANIEL C., Pittsford, Monroe Co., N. Y.
BOUGHTON, ALICE C., 4424 Larchwood Ave., West Philadelphia, Pa.
BRADT, CECILIA K., Margaret Morrison Carnegie School for Women, Pittsburgh, Pa.
BRAY, EVELYN, London, Ontario.
CAMERON, MRS. KATHERINE MORSE, Mich. Agr. College, East Lansing, Mich.
COLE, PROF. WM. MORSE, Harvard University, Cambridge, Mass.
COOPER, LENNA F., Sanitarium, Battle Creek, Mich.
CORBETT, FLORENCE R., Teachers College, Columbia University, New York City.
CROSBY, MRS. W. H., 1042 Main St., Racine, Wis.
CUSHING, FLORENCE M., 8 Walnut St., Boston, Mass.
DAVIS, OLIVE, Wellesley College, Wellesley, Mass.
DEWEY, MRS. ALVIN H., 50 Harper St., Rochester, N. Y.
DEWEY, MRS. ANNIE, Lake Placid Club, Essex Co., N. Y.
DEWEY, MELVIL, Lake Placid Club, Essex Co., N. Y.
FISHER, KATHARINE A., Macdonald College, Ste.Anne de Bellevue, Quebec, Canada.
GIBBONS, EMMA C., Beebe Hall, Wellesley College, Wellesley, Mass.
GILCHRIST, MAUDE, Mich. Agr. College, East Lansing, Mich.
GULDLIN, MRS. OLAF N., Fort Wayne, Ind.
HILL, SARAH C., The Bayard, New Brunswick, N. J.
HOOVER, JESSIE M., No. Dak. Agr. College, Fargo, No. Dak.
HOTCHKIN, MRS. ALICE M., 24 Calumet St., Rochester, N. Y.
LAGE, KATHERINE, Manhattan Trade School, 421 W. 121st St., New York City.
LANGWORTHY, C. F., U. S. Dept., Agriculture, Washington, D. C.
MACMILLAN, NEALINA, Macdonald College, Ste. Anne de Bellevue, Quebec, Canada.
MARTIN, ELLA, 5959 Midway Park, Austin, Ill.
MORAN, MRS. MARY H., New England Kitchen, 39 Charles St., Boston, Mass.
MORTIMER, MABEL, Macdonald College, Ste. Anne de Bellevue, Quebec, Canada.
NUTTING, M. ADELAIDE, Teachers College, Columbia University, New York City.

PATTERSON, ALICE M., Mt. Holyoke College, So. Hadley, Mass.
PETT, MRS. CLARA G., Winona, Minn.
ROSE, FLORA, Cornell University, Ithaca, N. Y.
SANBORN, GERTRUDE, San Antonio, Texas.
SHARP, KATHARINE L., Lake Placid Club, Essex Co., N. Y.
SMEDLEY, EMMA, 6 East Front St., Media, Pa.
SMELLIE, M. I. L., Macdonald, Guelph, Ontario.
SOUTHARD, LYDIA, Whittier Hall, Teachers College, New York City.
STUBBS, ANNA M., Mechanics Institute, Rochester, N. Y.
TENNANT, ETHEL J., Macdonald Hall, Guelph, Ontario.
THATCHER, RICHARD H., Hamilton Court, 39th and Chestnut Sts. Phila.
TUTTON, MABEL A., 140 York St. Buffalo, N. Y.
VAN RENSSELAER, MARTHA, Cornell University, Ithaca, N. Y.
WATSON, MARY URIE, Macdonald Institute, Guelph, Ontario.
WAY, CHARLOTTE M., Rockford College, Rockford, Ill.
WELD, JENNIE H., Simmons College, Boston, Mass.
WILKINSON, HENRY W., 114 East 28th St. New York City.

ANNOUNCEMENT OF ANNUAL MEETING, DECEMBER, 1910, OF THE AMERICAN HOME ECONOMICS ASSOCIATION.

The third annual convention of the American Home Economics Association will be held at St. Louis, December 27–30, 1910, in connection with the conventions of the American Economic and the Sociological Associations.

Annual meeting of the council, Tuesday, December 27, at 10:30 a.m.

The following items of business, among others, will come up: Reports of the President, Secretary, and Treasurer; reports of affiliated local societies; report of the Editor of the JOURNAL OF HOME ECONOMICS; report on plans for the management of the JOURNAL during 1911. Other items of business to be proposed should be reported to the secretary at once.

The provisional program for the meeting at St. Louis, with the persons in charge of program arrangements, follows:

One meeting with speakers from American Economic Association. Program: Secretary Andrews.

One meeting with speakers from American Sociological Association. Program: Secretary Andrews.

Two Education Section meetings (Elementary and High School Problems). Program: Mrs. Alice P. Norton, University of Chicago.

Two Administration Section meetings. Program: Miss Adelaide Nutting, Teachers College, New York City.

Instruction and Research in Chemistry and Dietetics. Program: Miss Edna Day, University of Kansas, Lawrence, Kansas.

Instruction and Research in Economics (Household Economics). Program: Miss S. P. Breckinridge, University of Chicago.

Instruction and Research in Textiles and Applied Art (Dress, Decoration, etc.) Program: Miss Abby Marlatt, University of Wisconsin, Madison.

Instruction and Research in Housing and Sanitation. Program: Miss Isabel Bevier, University of Illinois. Urbana.

Methods of Extension Work for Rural Communities for Women's Clubs, etc. Program: Miss Rosa Bouton, University of Nebraska, Lincoln, Neb.

General Public Session—Education for the Home.

It is especially requested that members of the Council send immediately to the persons named above suggestions of titles of papers or of persons who might contribute papers. Particularly it is hoped that there may be included under each heading reports of studies, thesis problems, research work, etc. now under way in different institutions. Such reports may have to be read by title only at St. Louis, but they can be included in the printed proceedings.

The headquarters of the Associaton will be at the Planters Hotel, St. Louis, which gives special rates to delegates. The granting of special railroad rates depends upon the attendance of 1000 persons at the conventions meeting at St. Louis during the week.

It is hoped that teachers in the colleges and schools of the middle West and South, and those concerned with problems of management in institutions, will rally to the St. Louis meeting. A strong local committee is arranging the coöperation of interests in St. Louis and a good program is assured.

General information may be secured from the Secretary of the Association, Benjamin R. Andrews, 525 W. 120th St., New York City.